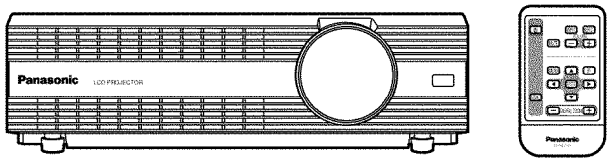
ORDER NO. VED0110325C0
D10

Service Manual

LCD Projector

PT-AE100U / PT-AE100E



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The service technician is required to read and follow the "Safety Precautions" and "Important Safety Notice" in this service Manual.

Specifications

Power supply:
100 V - 240 V AC, 50 Hz / 60 Hz
Power consumption:
180W [During standby (when fan is stopped): Approx. 0.7 W]
Amps:
2.2 A - 0.8 A
LCD panel:
Panel size (diagonal): 0.7 type (17.78 mm)
Aspect ratio: 16:9
Display method: 3 transparent LCD panels (RGB)
Drive method: Active matrix method
Pixels: 415 272 (858 × 484) × 3 panels
Lens:
Manual zoom (1 - 1.2) / focus lens,
F 2.0 - 2.3, f 22.0 mm - 26.2 mm
Lamp:
UHM lamp (120 W)
Luminosity:
700 lm/ANSI
Scanning frequency (for RGB signals):
Horizontal scanning frequency: 30 kHz - 70 kHz
Vertical scanning frequency: 50 Hz - 87 Hz
Dot clock frequency: 100 MHz or less
$Y P_B P_R$ signals:
525i (480i), 625i, 525p (480p), 750p (720p), 1125i (1080i)
Color system:
6 (NTSC / NTSC 4.43 / PAL / PAL-M / PAL-N / SECAM)
Projection size:
1 016 mm - 5 080 mm
Throw distance:
1.2 m - 7.4 m
Optical axis shift:
17:1 (fixed)
Screen aspect ratio:
16:9
Installation:
Front / Rear / Ceiling / Desk (Menu selection method)
Speakers:
4.0 cm × 3.0 cm oval × 1
Max. useable volume output:
2 W (monaural)
Connectors:
VIDEO IN:
S2 VIDEO: Single-line, Mini Din 4-pin
Y 1.0 V [p-p], C 0.286 V [p-p], 75 Ω,
VIDEO: Single-line, RCA pin jack
1.0 V [p-p], 75 Ω
AUDIO: RCA pin jack × 2 (L/R)
0.5 V [rms]
PC IN:
RGB: Single-line, D-SUB HD 15-pin (female)
R.G.B: 0.7V [p-p], 75Ω
G.SYNC: 1.0 V [p-p], 75Ω
HD/SYNC: TTL high impedance, automatic plus/minus polarity compatible
VD: TTL high impedance, automatic plus/minus polarity compatible
AUDIO: Single-line M3 jack (stereo MINI)
0.5 V [rms]
COMPONENT IN :
Y: 1.0 V [p-p], 75Ω
P_B, P_R (C_B, C_R): 0.7 V [p-p], 75Ω
AUDIO: RCA pin jack × 2 (L/R)
0.5 V [rms]
Cabinet:
Molded plastic (ABS / PC)
Dimensions:
Width: 280 mm
Height: 85 mm
Length: 242 mm (include lens)
Weight:
2.7 kg
Operating environment:
Temperature: 0° C - 40° C
(0° C - 35° C when operating in highlands)
Humidity: 20 % - 80 % (no condensation)
Certifications:
PT-AE100E: EN60950, EN55022, EN61000-3-2, EN61000-3-3, EN55024
PT-AE100U: UL1950, C-UL, FCC

<Remote control unit>

Power supply:
3 V DC (Lithium CR2025 battery × 1)
Operating range:
Approx. 7 m
(when operated directly in front of signal receptor)
Dimensions:
Width: 50 mm
Height: 12.5 mm
Length: 86 mm
Weight: 32 g (including battery)
Accessories:

Remote control unit (N2QDAC000003):		1
Lithium battery for remote control unit (CR2025):		1
Power cord:	**PT-AE100E:** K2CT3FR00001 (U.K)	1
	: K2CM3FR00001 (continental)	1
	PT-AE100U: K2CG3FR00001	1
Video/Audio cable [K2KA2FA00001 (3.0 m)**]:**		1
Carrying bag (TPEP004):		1

Options:

Ceiling bracket:	ET-PKE100
Projection Screen:	ET-SR90CT (width:1 800 mm)
	ET-SR70CT (width:1 400 mm)

- Specifications are subject to change without notice.
- Weight and dimensions shown are approximate.

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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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- Macintosh is a registered trademark of Apple Computer, Inc.
- S-VGA is a registered trademark of the Video Electronics Standards Association.

All other trademarks are the property of the various trademark owners.

Precaution

If using of this projector at high elevations (above 1 400 m), consult your dealer or Authorized Service Center.
Special measures will be necessary to use this projector at high elevations, so consult your dealer or Authorized Service Center about preparations.
Failure to observe this may cause malfunctions.

For US

IMPORTANT SAFETY NOTICE

There are special parts used in Panasonic LCD Projectors which are important for safety. These parts are shaded on the schematic diagram. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire, or other hazards. Do not modify the original design without permission of PANASONIC BROADCAST& TELEVISION SYSTEMS COMPANY.

WARNING:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate frequency energy and, if not installed and used in accordance with the instructions. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION: Any unauthorized changes or modifications to this equipment will void the users authority to operate.

1. Safety Precautions

1.1. General Guidelines

- For continued safety, no modification of any circuit must be attempted.

- Unplug the power cord from the power outlet before disassembling this projector.

- It is advisable to use an isolation transformer in the AC power line before the service.

- Observe the original lead dress during the service. If a short circuit is found, replace all the parts overheated or damaged by the short circuit.

- After the service, all the protective devices such as insulation barriers, insulation papers, shields, and isolation R-C combinations must be properly installed.

- After the service, check the leakage current to prevent the customer

from getting an electric shock.

1.2. Leakage Current Check

1. Prepare the measuring circuit as shown in Fig.1.
Be sure to use a voltmeter having the performance described in Table 1.

Fig. 1

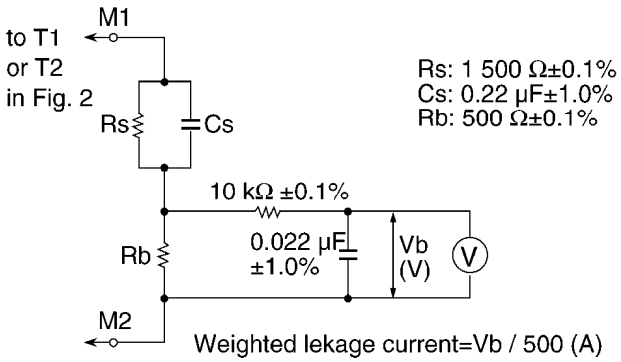
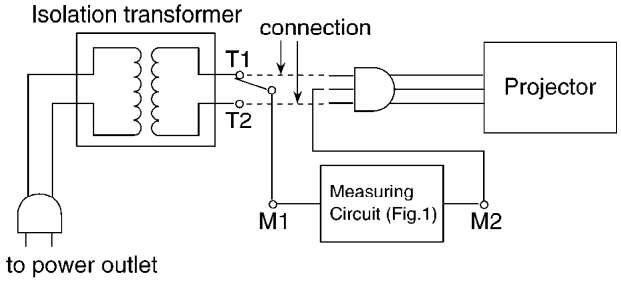


Table 1

	Performance
Voltmeter (rms reading)	Accuracy: ≤ 2% Input resistance: ≥ 1 MΩ Input capacitance: ≤ 200 pF Frequency range: 15 Hz to 1 MHz

Fig. 2



2. Assemble the circuit as shown in Fig. 2. Plug the power cord in a power outlet.

3. Connect M1 to T1 according to Fig. 2 and measure the voltage.

4. Change the connection of M1 from T1 to T2 and measure the voltage again.

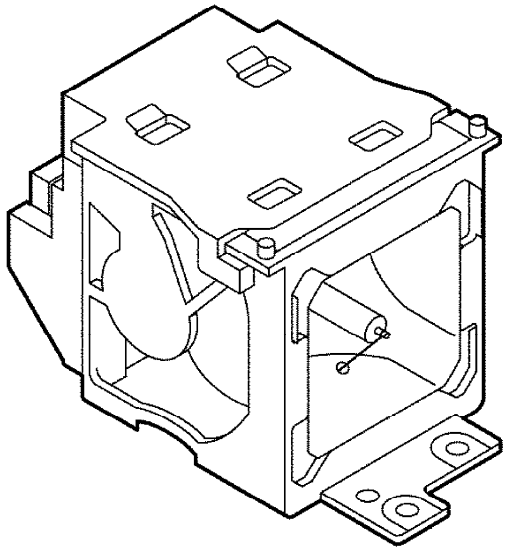
5. The voltmeter must read 0.375 V or lower in both of steps 3 and 4. This means that the current must be 0.75 mA or less.

6. If the reading is out of the above standard, the projector must be repaired and rechecked before returning to the customer because of a possibility of an electric shock.

1.3. UV Precaution and UHM Lamp Precautions

- Be sure to unplug the power cord from the power outlet when replacing the lamp.
- Because the lamp reaches a very high temperature during its operation, wait until it cools completely when replacing the Lamp Unit.
- The lamp emits small amounts of UV-radiation, avoid direct-eye contact with the light.
- Because the high pressure lamp involves a risk of explosion, never touch the lamp wire lead during the service. (See Fig. 3)

Fig. 3



2. Ext Option

This projector has EXT OPTION in addition to standard on-screen menus.

- There are SELF CHECK and SERVICE MODE for service, etc.

2.1. Procedure to enter EXT OPTION

1. Press "MENU" button on the remote control unit to display "MENU" screen, then select "OPTION" and press "ENTER" button.
2. Select "OSD" on "OPTION" menu and press "ENTER" button 3 seconds or longer.
   MENU → OPTION → OSD

2.2. EXT OPTION Menu and Functions

EXT OPTION

FREEZE MSG	OFF / ON
PIC.SHIFT	OFF / ON
RUNTIME PRT	OFF / ON
FAN CONTROL	NORMAL / HIGH / FULL
AUTOSETUP	NORMAL / SPECIAL
SELF CHECK	
SERVICE MODE	

- FREEZE MSG
Switching ON/OFF "FREEZE" on-screen display
- PIC.SHIFT
Switching ON/OFF the antipersistence function
- Shifts the picture slightly (by one dot) when every 60 minutes. (one dot shifting three times, one dot shifting three times in reverse direction, and repeats them alternately.)
- RUNTIME PRT
Switching ON/OFF the shutdown when the operation time for the lamp unit is 2 000 hours or longer
- FAN CONTROL
Setting the cooling fan motor rotation mode
- NORMAL: Normal setting
- HIGH: Highlands mode
- FULL: High-speed

Notes:
- Must set HIGH when using the projector at highlands as 1 400 meters or higher above sea level.
- Not to use the projector at highlands exceeding 2 700 meters above sea level.

- AUTOSETUP
Setting AUTO SETUP mode
- NORMAL: To set the normal mode (the dot clock is adjusted strictly)
- SPECIAL: To set the special mode (the dot clock is adjusted roughly)
*** Do not change the initial setting (NORMAL).**
- SELF CHECK

To enter the self-check mode

- SERVICE MODE

To enter the service mode

2.3. Canceling EXT OPTION

Press "MENU" button on the remote control unit.

3. Self-Check Mode

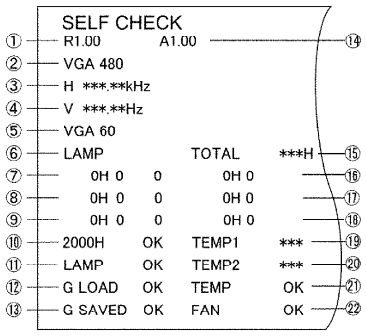
This mode is used to narrow down the location of the failure.

3.1. Procedure to enter the self-check mode

Select "SELF CHECK" on "EXT OPTION" menu and press "ENTER" button on the remote control unit.

3.2. Self Check Display and Contents

Display example


SELF CHECK
① R1.00 A1.00 ⑭
② VGA 480
③ H ***.**kHz
④ V ***.**Hz
⑤ VGA 60
⑥ LAMP TOTAL ***H ⑮
⑦ 0H 0 0 0H 0 ⑯
⑧ 0H 0 0 0H 0 ⑰
⑨ 0H 0 0 0H 0 ⑱
⑩ 2000H OK TEMP1 *** ⑲
⑪ LAMP OK TEMP2 *** ⑳
⑫ G LOAD OK TEMP OK ㉑
⑬ G SAVED OK FAN OK ㉒

↑

"OK": Normal, "--": Failure, Numeral: Number of times for turning on the lamp

* Above display is an example and the display contents depend on the input signal mode.

	Display Contents	Remarks
①	Microcomputer Version Display	Software Version
②	Resolution Name	Different display according to the input signal
③	Horizontal Signal Frequency	RGB or YP_BP_R signal reception only
④	Vertical Signal Frequency	
⑤	Signal Name	
⑥	Lamp	7 to 11: Lamp Data
⑦	Lamp Cumulative Usage Time	Current Usage Time
⑧		Second Usage Time
⑨		First Usage Time
⑩	Lamp Judgment for Cumulative Usage more than 2 000 h	Judgment for Replacement Time of Lamp
⑪	Lamp Abnormality	Check Cause of Lamp Malfunction
⑫	Gamma Correction Data Check	Judgment for Replacing A-P.C.Board
⑬		
⑭	FPGA Version Display *1	Software Version
⑮	Projector Cumulative Usage Time	Total Usage Time
⑯	Lamp Cumulative Usage Time (Normal Mode Conversion Time)	Current Usage Time
⑰		Second Usage Time
⑱		First Usage Time
⑲	Temp Sensor 1 Measurement Value *2	Around LCD Panel
⑳	Temp Sensor 2 Measurement Value *2	Around Intake Slot (Detects air filter's choke, etc.)
㉑	Temperature Abnormality Check	Cause of Lamp Malfunction
㉒	Fan Stop Check	

*1 FPGA (Field Programmable Gate Array)
LSI that is rewritable quickly while inspecting the program by system designer. (This will be able to reduce the development time.)

*2 When detected abnormal temperature (high temperature around the LCD panel, large difference between temperature at the intake slot and temperature around the LCD panel), TEMP LED is turned on and the power is shutdown if arriving at the critical temperature.

3.3. Canceling the self-check mode

Press "MENU" button on the remote control unit.

4. Service Mode

This mode is used to display three kinds of test patterns [Horizontal lines, Vertical lines, Dots and White (No pattern)] in the four colors (White, Red, Green and Blue).

Note:

- On the service mode, displays above patterns by each color without test equipment such as PC or SG. Use the service mode for simplified

adjustments by your eyes and so on.

4.1. Procedure to enter the service mode

Select "SERVICE MODE" on "EXT OPTION" menu and press "ENTER" button on the remote control unit.

Note:

- In the service mode, pressing the up-arrow "▲" or down-arrow "▼" button on the remote control unit allows the testpattern selection and the left-arrow "◀" or right-arrow "▶" button the color selection (White / Red / Green / Blue).

4.2. Canceling the service mode

Press "MENU" button on the remote control unit.

5. Disassembly Instructions

Warning:

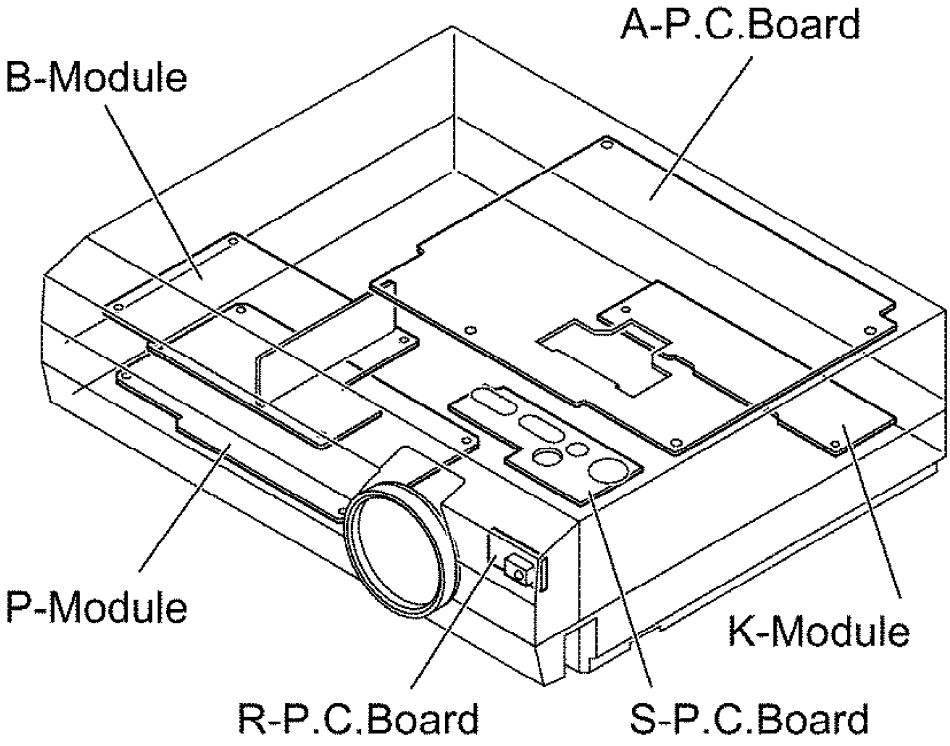
- Be sure to unplug the power cord from the power outlet before disassembling this projector.

Caution:

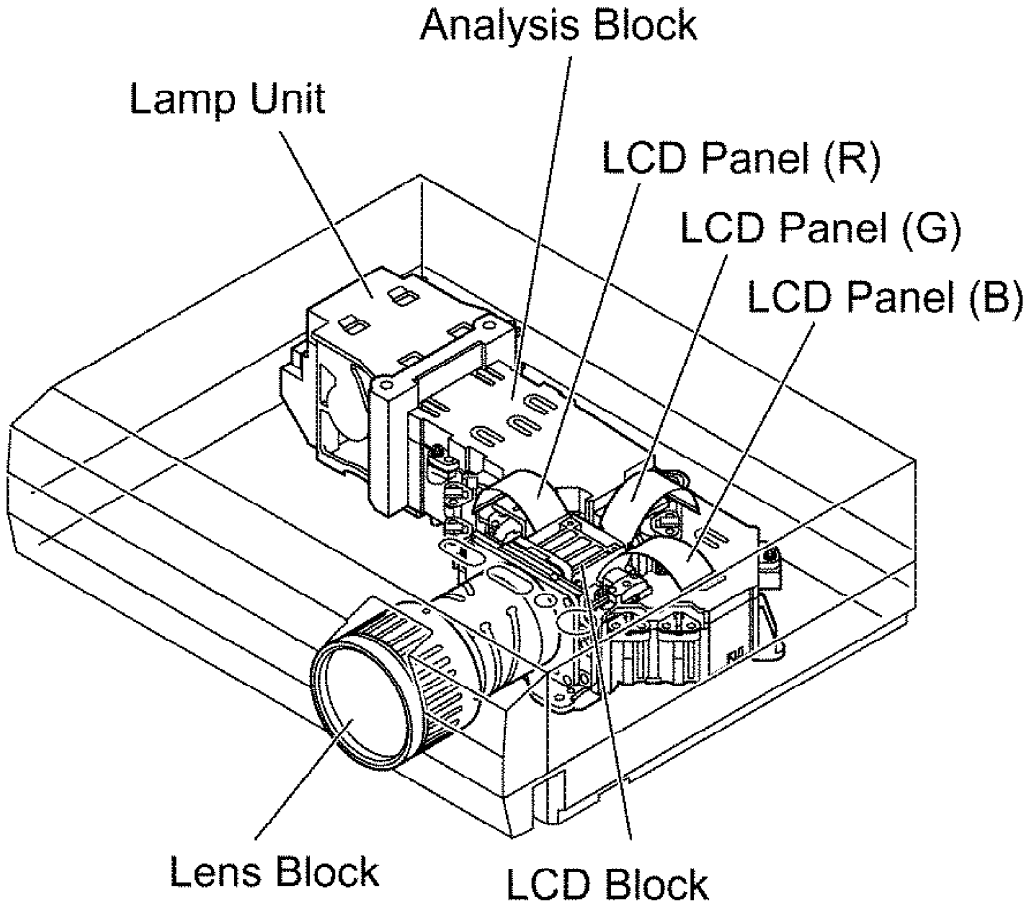
- While turning over a printed circuit board, be sure to put a insulating material under it to prevent a short circuit.
- Printed circuit boards and wires must not be pulled forcibly, but be handled carefully.
- Connectors also must be handled carefully.
- After repairing this projector, be sure to put back the wires and connectors to the original condition.

5.1. Printed Circuit Board and Main Parts Location

Electrical Parts



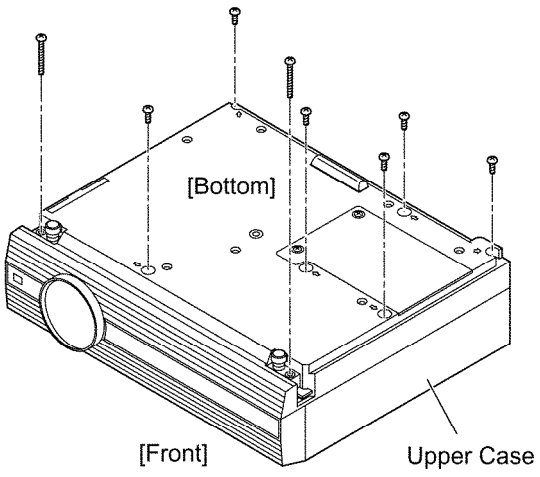
Optical Parts



5.2. Removal of Upper Case

1. Turn the projector upside down.

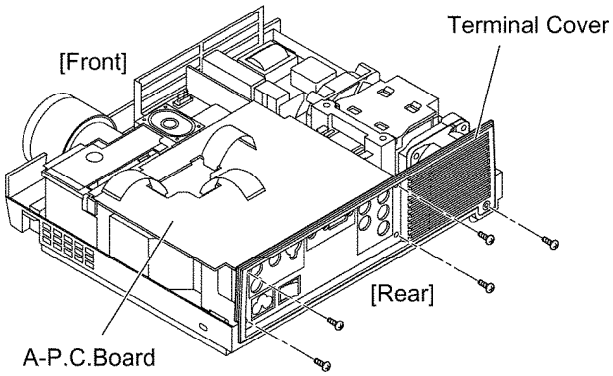
2. Unscrew the 8 screws fixing the upper case.



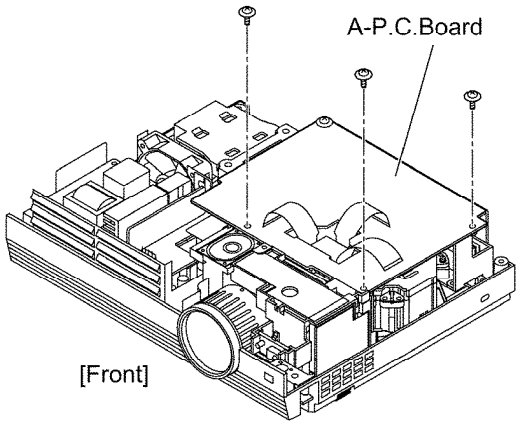
3. Return the projector to the normal position.
4. Remove the upper case.

5.3. Removal of A-P.C.Board

1. Remove the upper case according to the section 5.2. "Removal of Upper Case".
2. Disconnect the connectors from/to the A-P.C.Board.
3. Unscrew the 5 screws and remove the terminal cover.

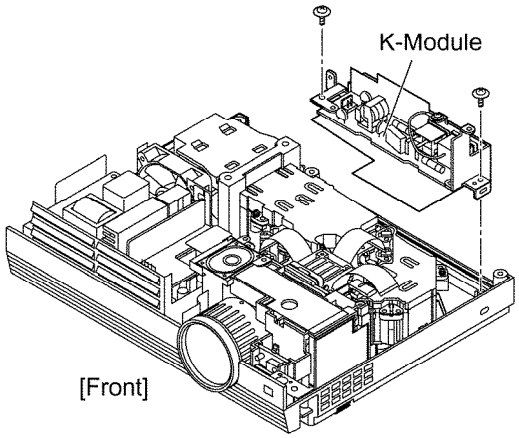


4. Unscrew the 3 screws and remove the A-P.C.Board.



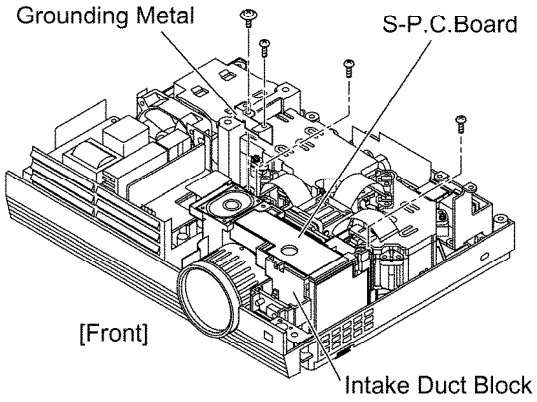
5.4. Removal of K-Module

1. Remove the upper case according to the section 5.2. "Removal of Upper Case".
2. Remove the A-P.C.Board according to the section 5.3. "Removal of A-P.C.Board".
3. Disconnect the 1 connector.
4. Unscrew the 2 screws and remove the K-Module.

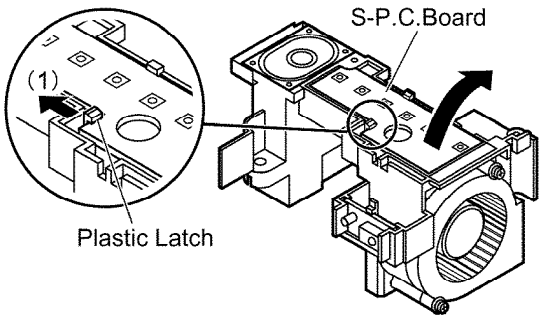


5.5. Removal of S-P.C.Board

1. **Remove the upper case according to the section 5.2. "Removal of Upper Case".**
2. **Remove the A-P.C.Board according to the section 5.3. "Removal of A-P.C.Board".**
3. **Unscrew the 2 screws and remove the grounding metal.**
4. **Unscrew the 2 screws and remove the intake duct block.**



5. **Disconnect the 4 connectors.**
6. **While pressing the plastic latch of the intake duct in the direction of arrow (1), remove the S-P.C.Board.**



Note:

- Work with care because the plastic latch may be damaged if it is overforced.

5.6. Removal of R-P.C.Board

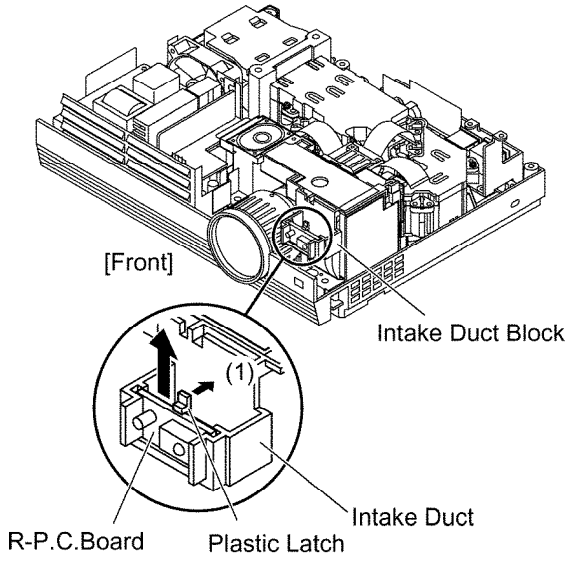
1. Remove the intake duct block according to the steps 1 through 4 in the section 5.5. "Removal of S-P.C.Board".

2. Disconnect the 4 connectors on back of the S-P.C.Board.

3. While pressing the plastic latch of the intake duct in the direction of arrow (1), remove the R-P.C.Board.

Note:

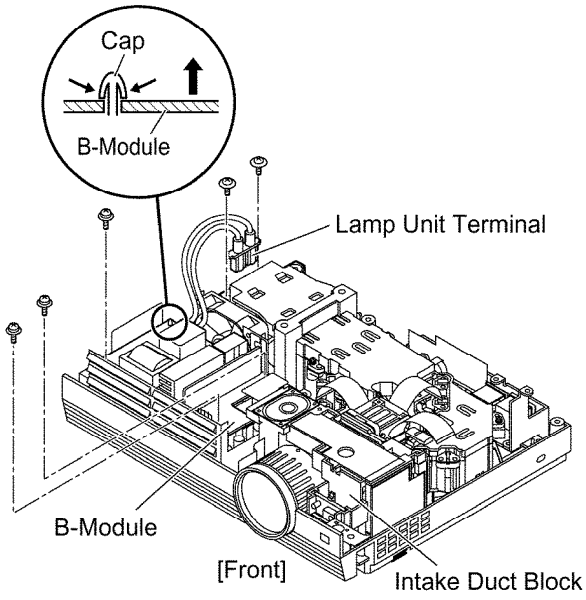
- Work with care because the plastic latch may be damaged if it is overforced.



5.7. Removal of B-Module

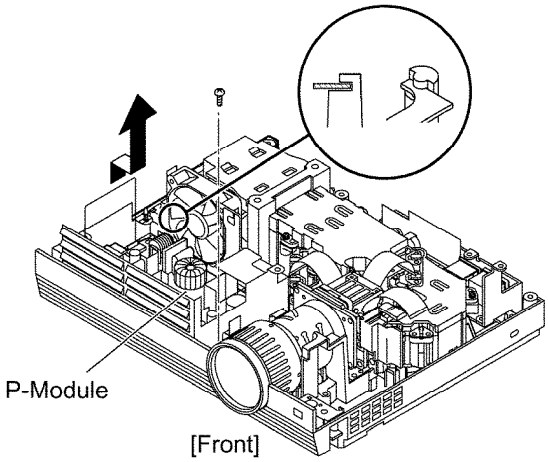
1. Remove the upper case according to the section 5.2. "Removal of Upper Case".

2. **Remove the A-P.C.Board according to the section 5.3. "Removal of A-P.C.Board".**
3. **Unscrew the 2 screws and remove the lamp unit terminal.**
4. **Unscrew the 3 screws.**
5. **While pressing to close the cap of the resinous stand, remove the B-Module.**



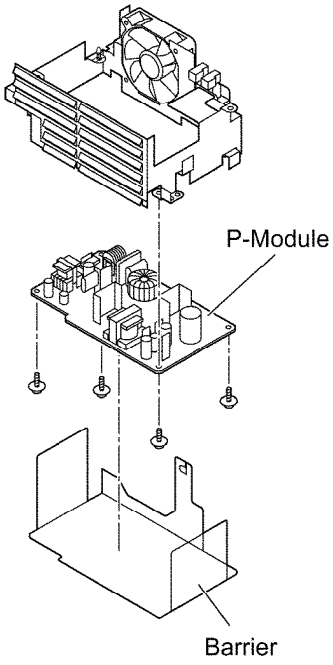
5.8. Removal of P-Module

1. **Remove the intake duct block according to the steps 1 through 4 in the section 5.5. "Removal of S-P.C.Board".**
2. **Remove the B-Module according to the section 5.7. "Removal of B-Module".**
3. **Unscrew the 1 screw.**
4. **Lift the P-Module block slightly, shifting it toward the lens as shown in the arrow, take it upward.**



5. Remove the barrier.

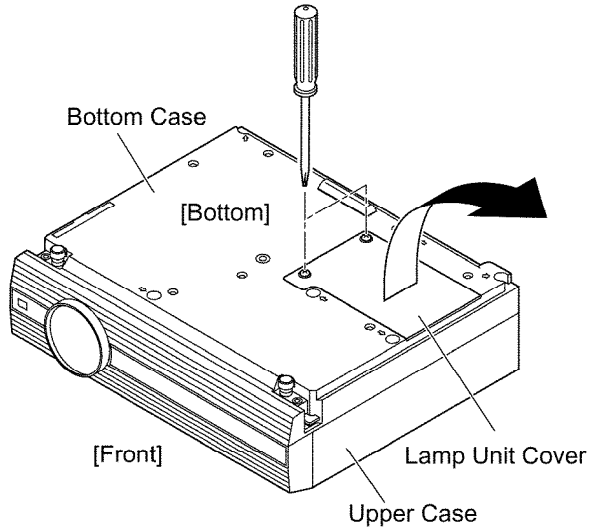
6. Unscrew the 4 screws and remove the P-Module.



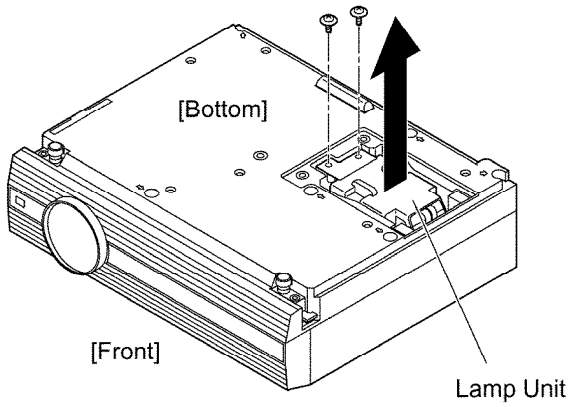
5.9. Removal of Lamp Unit

1. Turn the projector upside down.

2. Loosen the 2 screws until they idle, lift the lamp unit cover to remove.

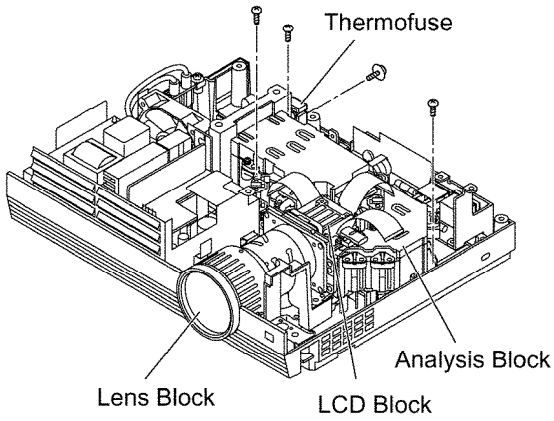


3. Unscrew the 2 screws fixing the lamp unit and remove the lamp unit.

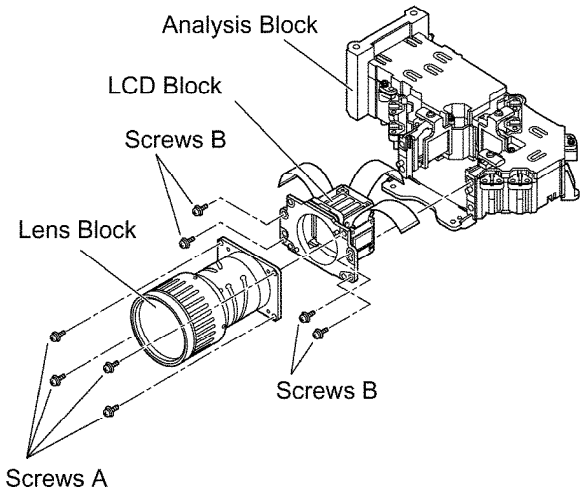


5.10. Removal of Analysis Block, LCD Block and Lens Block

1. **Remove the lamp unit according to the section 5.9. "Removal of Lamp Unit".**
2. **Remove the intake duct block according to the steps 1 through 4 in the section 5.5. "Removal of S-P.C.Board".**
3. **Unscrew the 1 screw and separate the thermofuse from the analysis block.**
4. **Unscrew the 3 screws and remove the analysis/LCD/lens block.**



5. Unscrew the 4 screws A to separate the lens block and the LCD block, unscrew the 4 screws B to separate the LCD block and the analysis block.



5.11. Replacement of Polarizer

1. Remove the upper case according to the section 5.2. "Removal of Upper Case".

2. Remove the A-P.C.Board according to the section 5.3. "Removal of A-P.C.Board".

3. Mark positions of the polarizer (R/G/B).

Note:

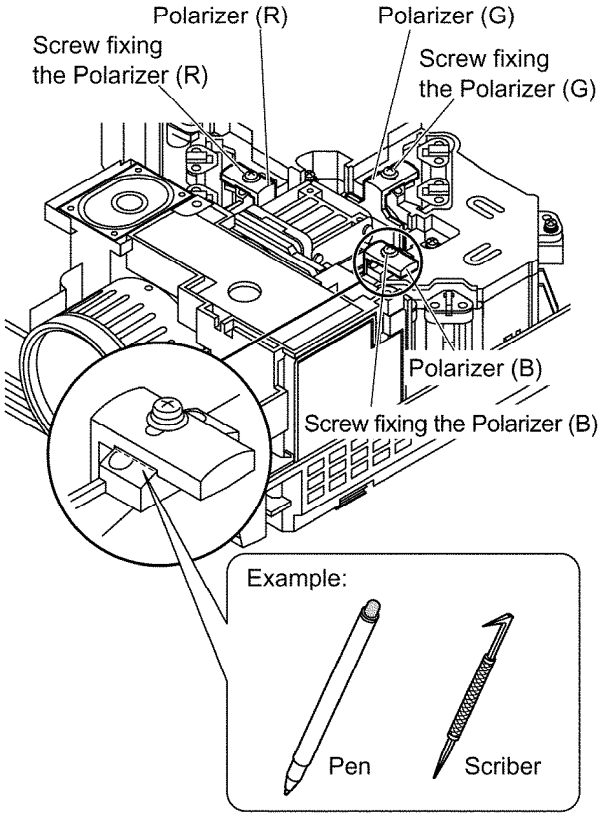
- Mark accurately as possible because the marks will be used for resetting the polarizer position.

4. Unscrew each screw fixing the polarizer and remove the polarizer.

5. Attach a new polarizer and align it with the mark.

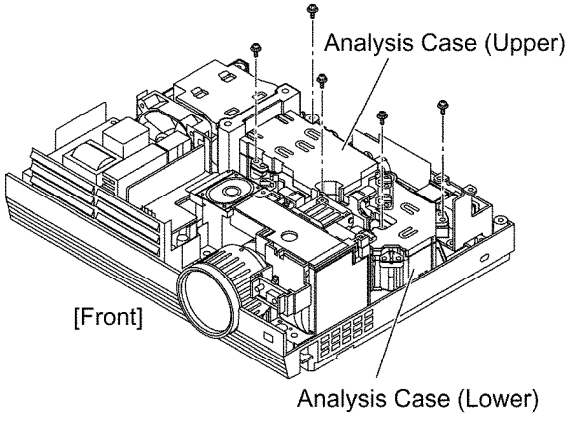
6. Tighten the screw fixing the polarizer with care not to move its

position.



5.12. Replacement of PBS Array (Analysis Block)

1. **Remove the upper case according to the section 5.2. "Removal of Upper Case".**
2. **Remove the A-P.C.Board according to the section 5.3. "Removal of A-P.C.Board".**
3. **Unscrew the 5 screws.**



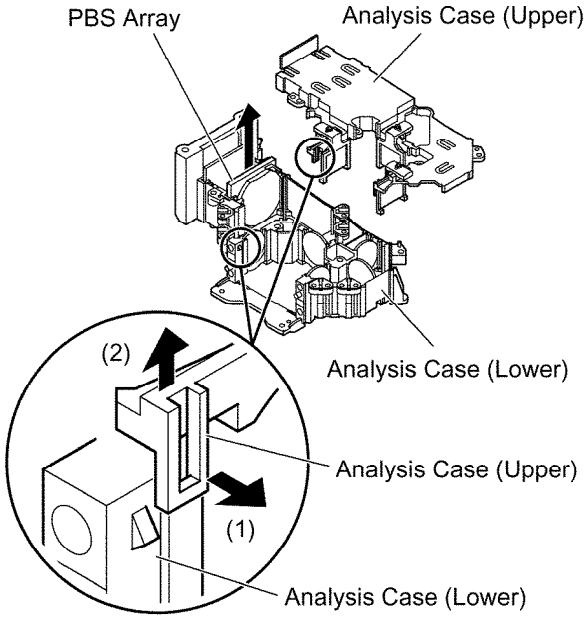
4. **Disconnect 2 joint hooks of the analysis cases and remove the analysis case (upper).**

Notes:

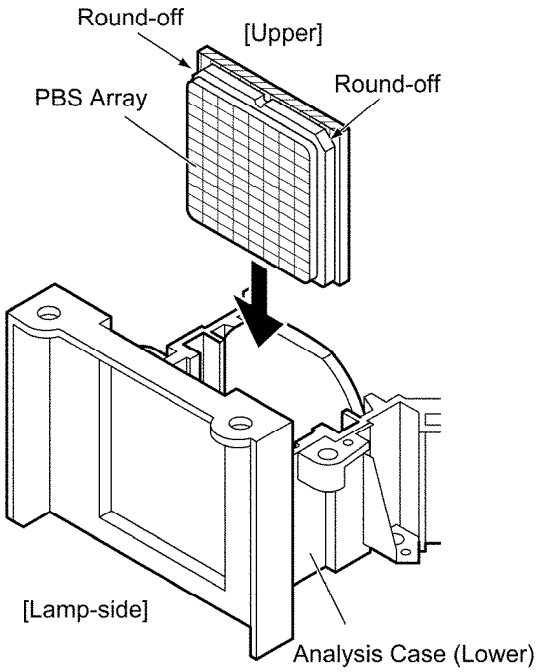
- While pulling the hook of the analysis case (upper) in the direction of arrow (1), unhook it from the analysis case (lower).

- Polarizers (R/G/B) are attached on the analysis case (upper). Handle with care not to apply external force to the polarizers.

- Do not touch optical components (lens, mirror, etc.) of the analysis block. If dirt or aberration has brought into existence, efficiency of the projector may deteriorate.



5. Take the PBS array with the edges and replace it.

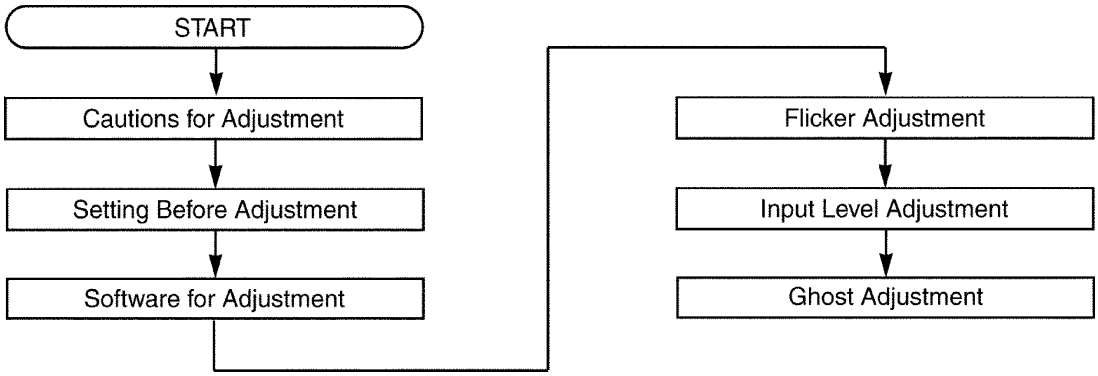


Note:

- When attaching a new PBS array, be careful not to mistake the direction.

6. Measurement and Adjustments

6.1. Adjustment Procedure Flowchart

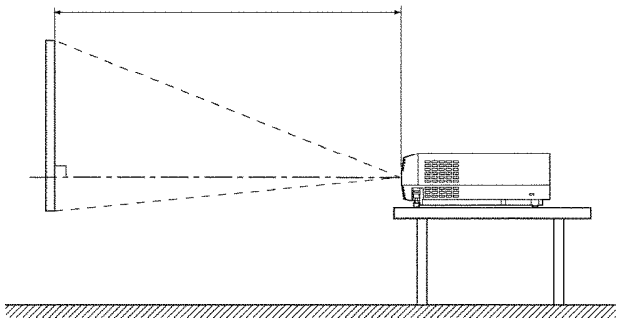


6.2. Cautions for Adjustment

- Never turn off the MAIN POWER switch until every fan completely stops.
- To maintain and ensure safety, always use the designated components for replacement parts.
- If removing any clamps, lead wires or connectors, always place them back in their proper locations.
- Be careful not to damage the lead wires or components when using a soldering iron or similar tool.

6.3. Setting Before Adjustment

- Set up the projector to obtain the projection distance below.
- Turn the zoom ring of the projector to obtain the largest size of the picture.

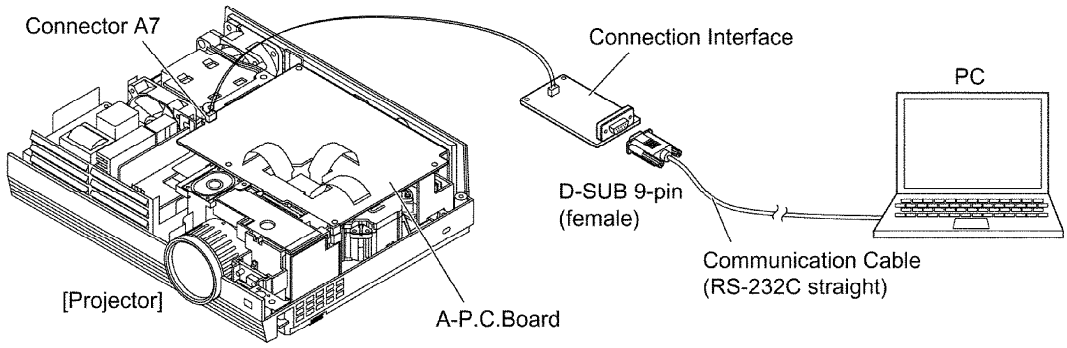


6.4. Software for Adjustment

6.4.1. Outline

- This projector needs computer-aided adjustments.
- After the software adjustments, this projector must be turned off and on again to memorize the settings.

- Connect the connection interface and communication cable between the projector and a PC as shown below.
- Updating the software will change the version number.



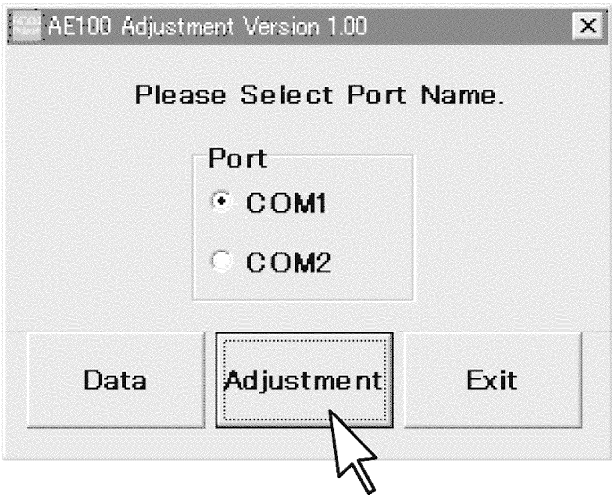
6.4.2. Operating Procedure

1. Run the software program by the keyboard entry.

2. The first menu is the port selection menu.

3. Adjust the projector by selecting the necessary item from the menu in each stage.

6.4.3. Port Selection Menu



Select "COM 1" or "COM 2" and click "Data" or "Adjustment".

6.4.3.1. Explanation of Buttons

Data:
Displays the data send/receive menu.

Adjustment:
Displays the adjustment menu.

Exit:
Exits this application.

6.4.4. Data Send/Receive Menu

6.4.4.1. Explanation of Buttons

Micom Data Send:
Reads the microcomputer data from the file and sends it to the projector.

Micom Data Receive:
Receives the microcomputer data from the projector and writes it in the file.

Gamma Data Send:
Reads the gamma data from the file and sends it to the projector.

Gamma Data Receive:
Receives the gamma data from the projector and writes it in the file.

Uniformity Data Send:
Reads the color unevenness correction data from the file and sends it to the projector.

Uniformity Data Receive:
Receives the color unevenness correction data from the projector and writes it in the file.

FPGA Data Send:
Reads the FPGA data from the file and sends it to the projector.

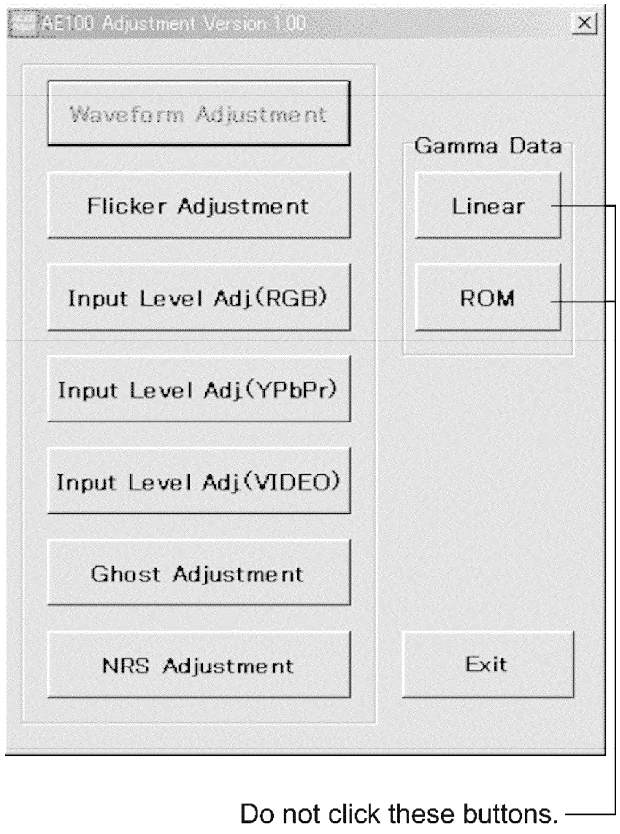
FPGA Data Receive:
Receives the FPGA data from the projector and writes it in the file.

Exit:
Exits this application.

6.4.4.2. Receiving and sending of the data

Click a target button and specify a file name.

6.4.5. Adjustment Menu



6.4.5.1. Explanation of Buttons

Waveform Adjustment:
This button is not available.

Flicker Adjustment:
Displays the flicker adjustment menu.

Input Level Adjustment (RGB):
Displays the PC input level adjustment menu.

Input Level Adjustment (YPbPr):
Displays the component input level adjustment menu.

Input Level Adjustment (VIDEO):
Displays the video input level adjustment menu.

Ghost Adjustment:
Displays the ghost adjustment menu.

NRS Adjustment:
This button is not used.

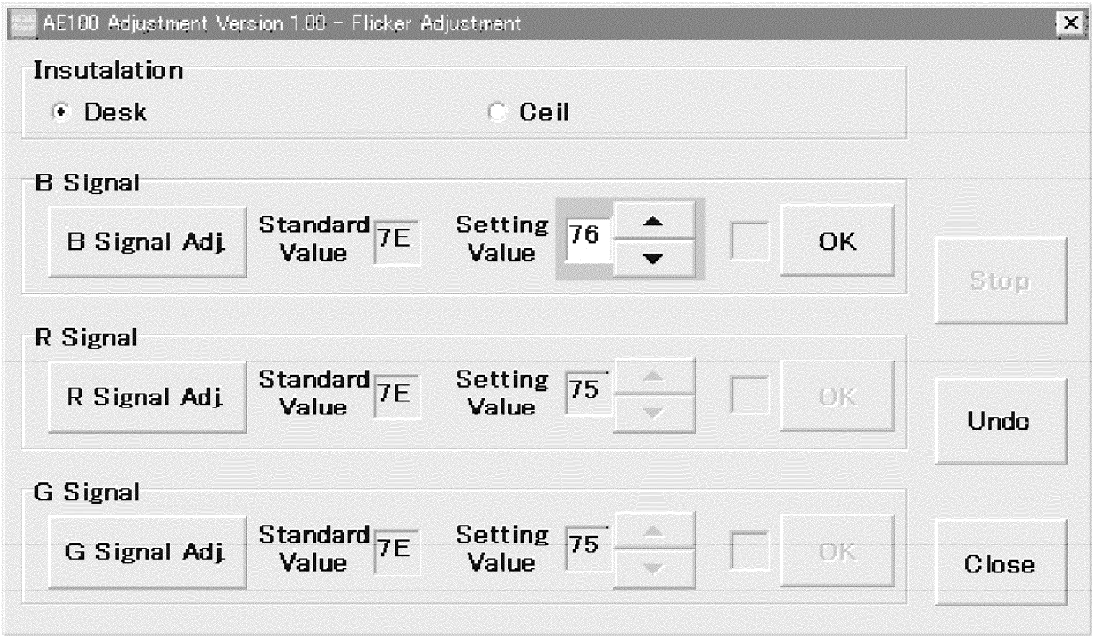
Gamma Data Linear:
This button is only used for factory. (Do not click this button.)

Gamma Data ROM:
This button is only used for factory. (Do not click this button.)

Exit:
Exits this application.

6.5. Flicker Adjustment

6.5.1. Adjustment Menu



6.5.2. Explanation of Buttons

Desk:
Sets the installation mode to the desk setting and receive the current data.

Ceil:
Sets the installation mode to the ceiling setting and receive the current data.

R Signal Adj.:

Sets the test signal mode to the R-signal and allows the "▲", "▼" and "OK" buttons of the R-signal to becomes active.

G Signal Adj.:

Sets the test signal mode to the G-signal and allows the "▲", "▼" and "OK" buttons of the G-signal to becomes active.

B Signal Adj.:

Sets the test signal mode to the B-signal and allows the "▲", "▼" and "OK" buttons of the B-signal to becomes active.

▲ or ▼
Changes the setting value and transmits its data. (The 8 and 2 keys on the keyboard have the same functions.) If releasing the mouse or key after pressing it continuously, the data is transmitted once. The variable setting value is enclosed ina box and using the TAB or SPACE key allows the move of the box.

OK:
Determines the setting value and stores its data in the EEPROM. (The ENTER key on the keyboard has the same function.) The item having two or more kinds of setting values is processed two or more items. Clicking this button or pressing ENTER keychanges the color of the text "OK" to cyan (light blue). If changing the setting value using the "▲" or "▼" button or the 8or 2 key, its color returns to black.

Stop:
Discontinues the communication. (This button is usually set for its inactive mode.)

Undo:
Returns the setting value to its original state and transmits its data. The color of the text "OK" returns to black.

Close:
Closes this menu.

6.5.3. Equipment to be used

PC, Software for Adjustment

6.5.4. Adjustment Procedure

1. **Display the flicker adjustment menu.**
2. **Set the installation mode to the desk setting.**
3. **Click "R Signal Adj," and the red flicker adjustment pattern will be displayed.**
4. **Minimize the flicker while observing the projected pattern.**
5. **Click "G Signal Adj," and the green flicker adjustment pattern will be displayed.**
6. **Minimize the flicker while observing the projected pattern.**
7. **Click "B Signal Adj," and the blue flicker adjustment pattern will be displayed.**
8. **Minimize the flicker while observing the projected pattern.**
9. **Change the installation mode to the ceiling setting and follow steps 3 to 8 inclusive.**

6.6. Input Level Adjustment (RGB)

6.6.1. Adjustment Menu

AE100 Adjustment Version 1.00 - Auto Sub Contrast/Brightness Adj.
Execute Auto Sub Contrast/Sub Brightness Adjustment.
OK or Cancel?
OK
Cancel

6.6.2. Explanation of Buttons

OK:
Executes automatic sub contrast and sub brightness adjustments, then closes this dialog.

Cancel:
Cancels this menu.

6.6.3. Equipment to be used

PC, Software for Adjustment, Signal Generator

6.6.4. Adjustment Procedure

1. Display the input level adjustment menu.

2. Input a window pattern signal to PC IN (RGB) connector.

Note:

Use approx. 15 % window pattern as follows.
Black background (screen width) : White window width = 2 : 1
Black background (screen height) : White window height = 3 : 1

3. Click the OK button.

6.7. Input Level Adjustment (YP_BP_R)

6.7.1. Adjustment Menu

AE100 Adjustment Version 1.00 - Auto Sub Contrast/Brightness Adj.
Execute Auto Sub Contrast/Sub Brightness Adjustment.
OK or Cancel?
OK
Cancel

6.7.2. Explanation of Buttons

OK:
Executes automatic sub contrast and sub brightness adjustments, then closes this dialog.

Cancel:

Cancels this menu.

6.7.3. Equipment to be used

PC, Software for Adjustment, Signal Generator

6.7.4. Adjustment Procedure

1. Display the input level adjustment menu.

2. Input a 480p adjustment pattern signal to COMPONENT IN (YP_BP_R) connectors.

3. Click the OK button.

6.8. Input Level Adjustment (VIDEO)

6.8.1. Adjustment Menu

AE100 Adjustment Version 1.00 - Auto Sub Contrast/Brightness Adj.
Execute Auto Sub Contrast/Sub Brightness Adjustment.
OK or Cancel?
OK
Cancel

6.8.2. Explanation of Buttons

OK:
Executes automatic sub contrast and sub brightness adjustments, then closes this dialog.

Cancel:
Cancels this menu.

6.8.3. Equipment to be used

PC, Software for Adjustment, Signal Generator

6.8.4. Adjustment Procedure

1. Display the input level adjustment menu.

2. Input a video adjustment pattern signal to VIDEO IN connector.

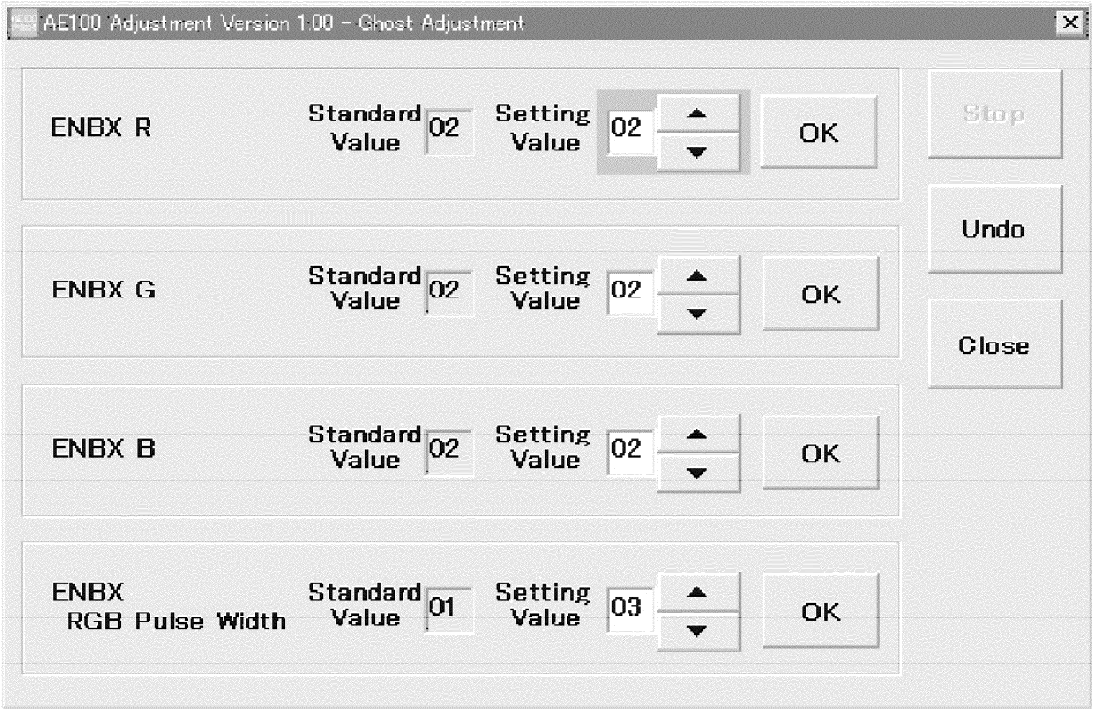
Note:

Use approx. 15 % window pattern as follows.
Black background (screen width) : White window width = 2 : 1
Black background (screen height) : White window height = 3 : 1

3. Click the OK button.

6.9. Ghost Adjustment

6.9.1. Adjustment Menu



6.9.2. Explanation of Buttons

▲or ▼

Changes the setting value and transmits its data. (The 8 and 2 keys on the keyboard have the same functions.) If releasing the mouse or key after pressing it continuously, the data is transmitted once. The variable setting value is enclosed ina box and using the TAB or SPACE key allows the move of the box.

OK:

Determines the setting value and stores its data in the EEPROM. (The ENTER key on the keyboard has the same function.) The item having two or more kinds of setting values is processed two or more items. Clicking this button or pressing ENTER keychanges the color of the text "OK" to cyan (light blue). If changing the setting value using the "▲" or "▼" button or the 8or 2 key, its color returns to black.

Stop:

Discontinues the communication. (This button is usually set for its inactive mode.)

Undo:

Returns the setting value to its original state and transmits its data. The color of the text "OK" returns to black.

Close:

Closes this menu.

6.9.3. Equipment to be used

PC, Software for Adjustment, Signal Generator

6.9.4. Adjustment Procedure

1. Display the ghost adjustment menu.

2. Input a checker pattern signal.

3. Minimize the ghost while observing the projected pattern.

4. Set the value to the point being its optimum value minus 1.

7. Troubleshooting

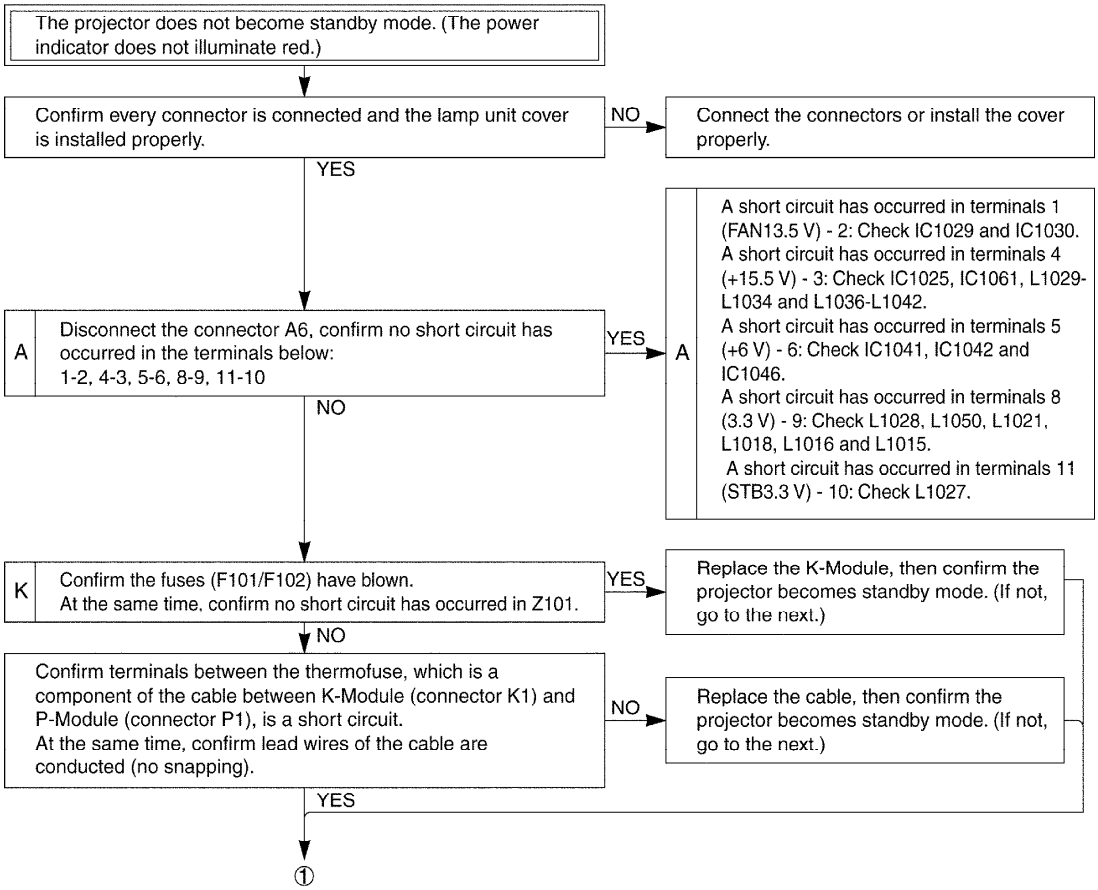
- The letters in the left of the inspection items indicate the P.C.Boards or Modules related to their respective descriptions.

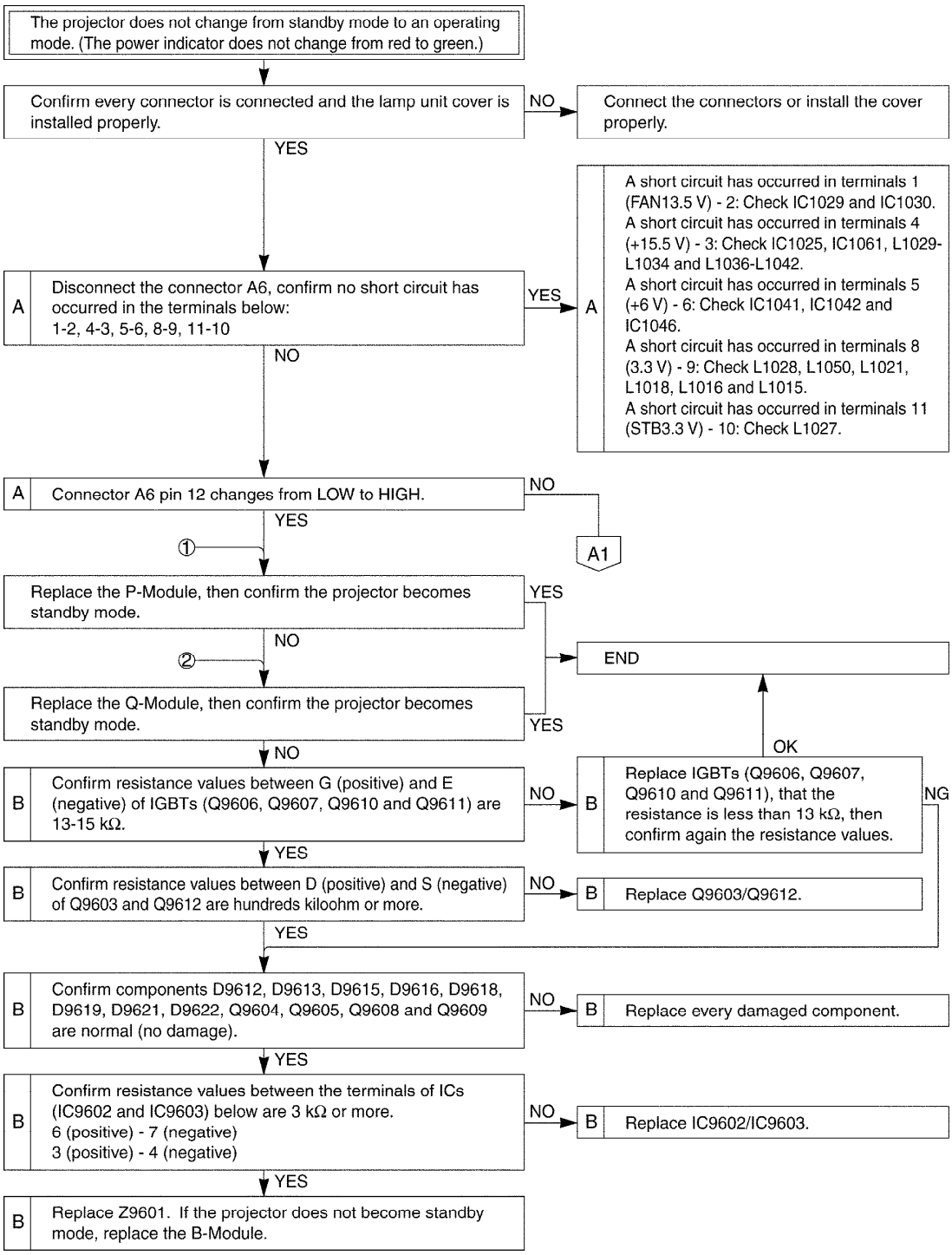
Note: A

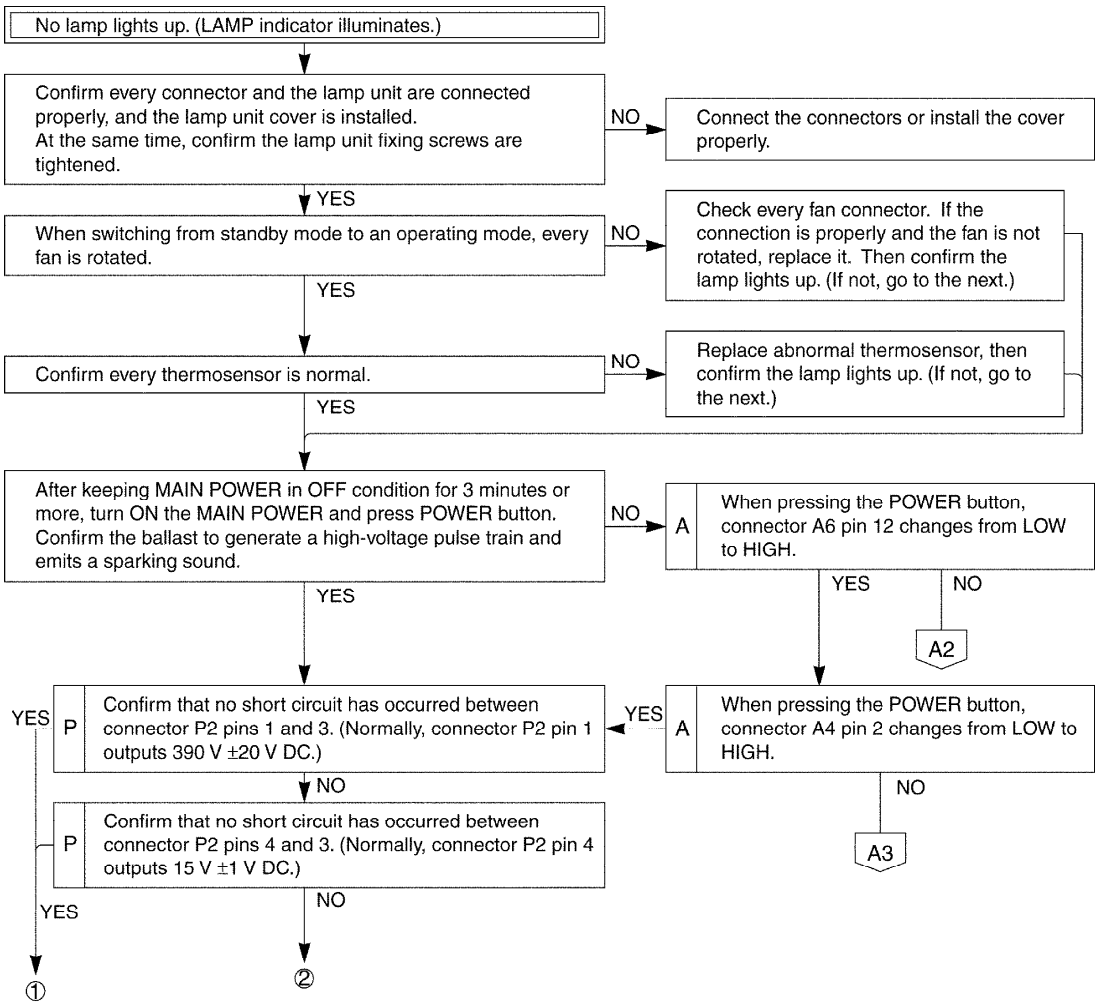
The letter of the alphabet indicates the P.C.Board or Module name.

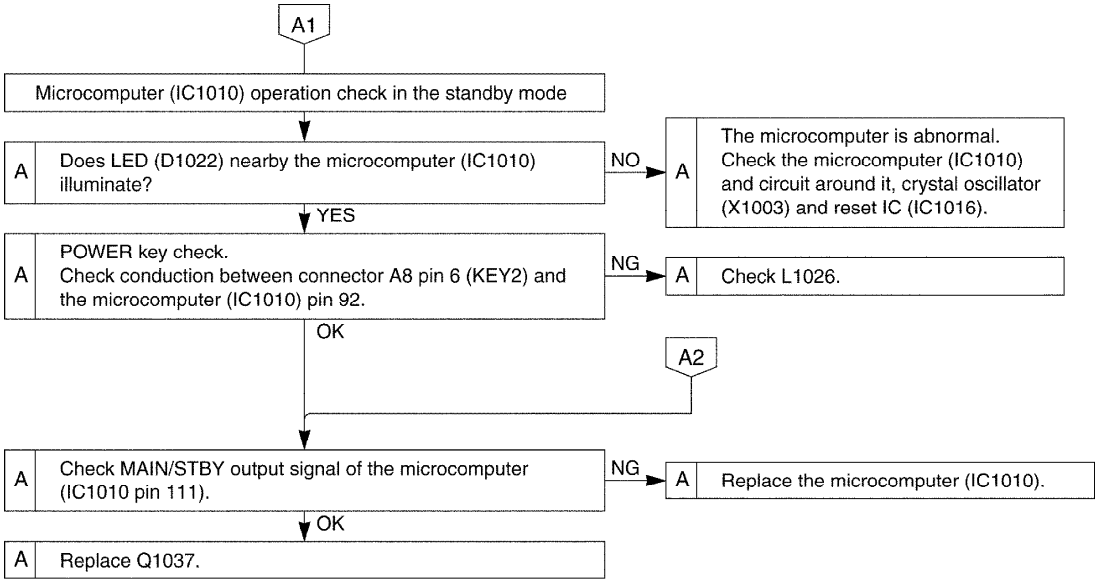
(Example) A: A-P.C.Board, K: K-Module

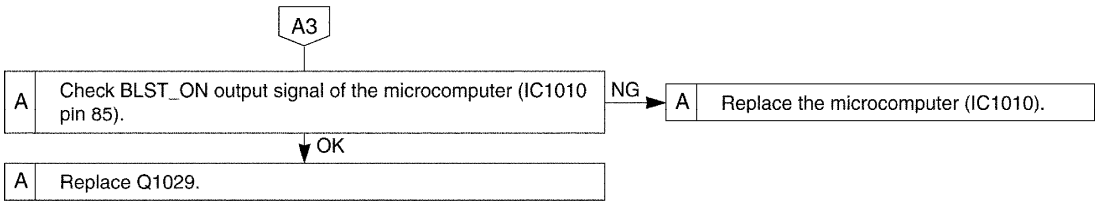
- If replacing A-P.C.Board (assembly), read the ROM data from the old P.C.Board and write it in the new one according to the section 6.4. "Software for Adjustment". At this time, if the readout from the old P.C.Board does not succeed, remove IC1011 and IC1017 from the old P.C.Board and install them on the new one.
- If replacing A-P.C.Board (assembly), adjust the Input Level according to the chapter 6 "Measurements and Adjustments".

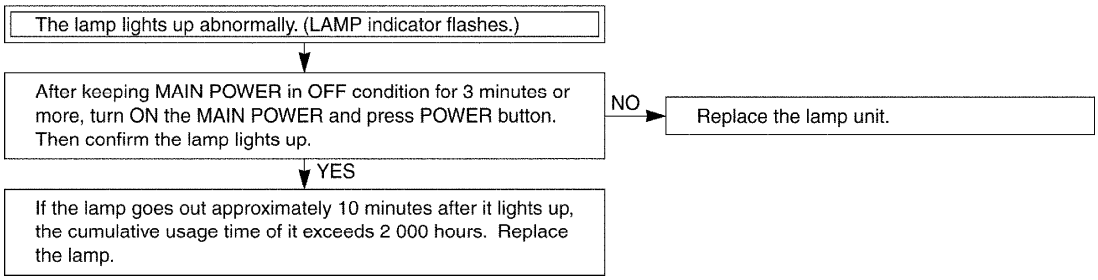

The projector does not become standby mode. (The power indicator does not illuminate red.)
Confirm every connector is connected and the lamp unit cover is installed properly.
NO
Connect the connectors or install the cover properly.
YES
A
Disconnect the connector A6, confirm no short circuit has occurred in the terminals below:
1-2, 4-3, 5-6, 8-9, 11-10
YES
A
A short circuit has occurred in terminals 1 (FAN13.5 V) - 2: Check IC1029 and IC1030.
A short circuit has occurred in terminals 4 (+15.5 V) - 3: Check IC1025, IC1061, L1029-L1034 and L1036-L1042.
A short circuit has occurred in terminals 5 (+6 V) - 6: Check IC1041, IC1042 and IC1046.
A short circuit has occurred in terminals 8 (3.3 V) - 9: Check L1028, L1050, L1021, L1018, L1016 and L1015.
A short circuit has occurred in terminals 11 (STB3.3 V) - 10: Check L1027.
NO
K
Confirm the fuses (F101/F102) have blown.
At the same time, confirm no short circuit has occurred in Z101.
YES
Replace the K-Module, then confirm the projector becomes standby mode. (If not, go to the next.)
NO
Confirm terminals between the thermofuse, which is a component of the cable between K-Module (connector K1) and P-Module (connector P1), is a short circuit.
At the same time, confirm lead wires of the cable are conducted (no snapping).
NO
Replace the cable, then confirm the projector becomes standby mode. (If not, go to the next.)
YES
①

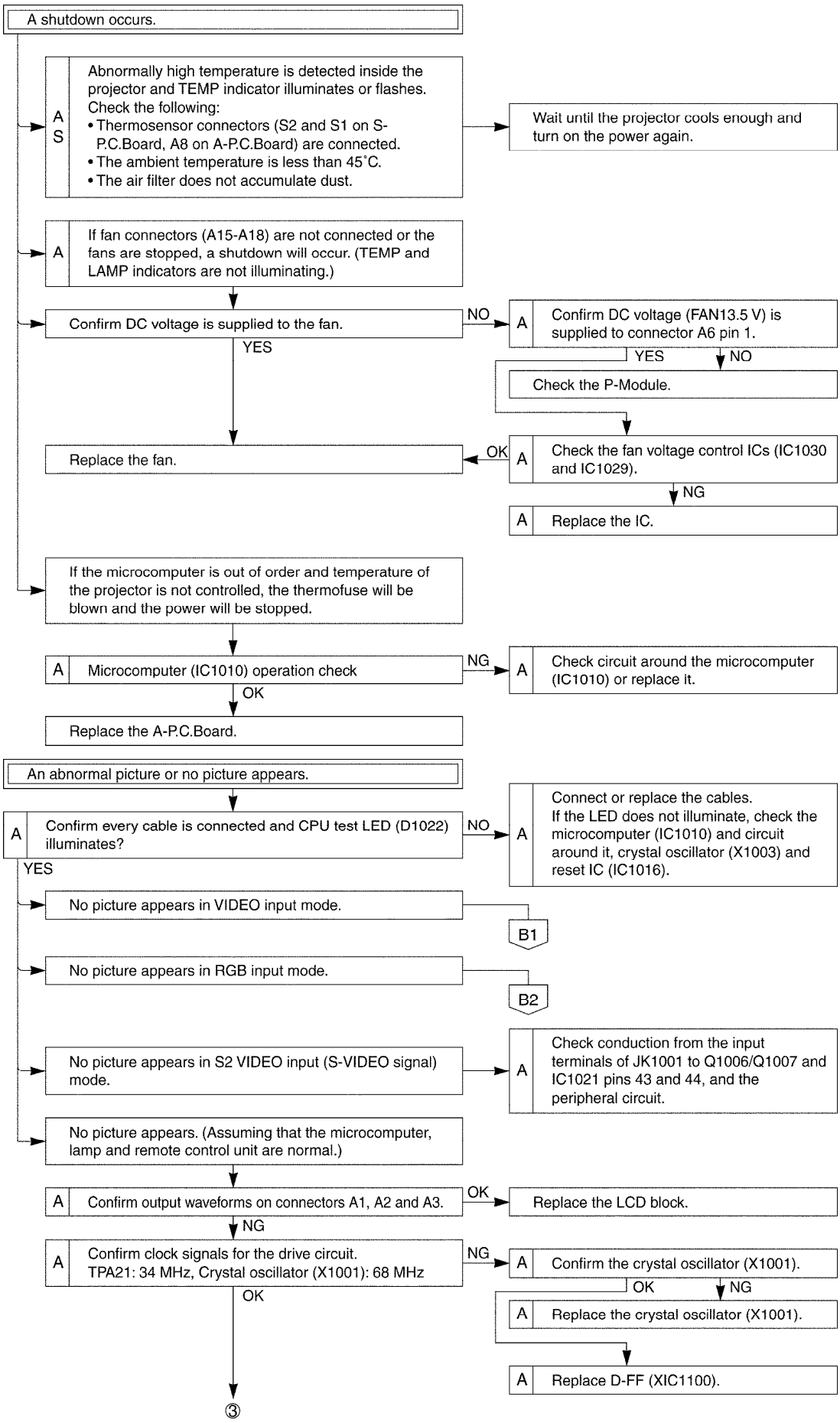

The projector does not change from standby mode to an operating mode. (The power indicator does not change from red to green.)
Confirm every connector is connected and the lamp unit cover is installed properly.
NO
Connect the connectors or install the cover properly.
YES
A
Disconnect the connector A6, confirm no short circuit has occurred in the terminals below:
1-2, 4-3, 5-6, 8-9, 11-10
YES
A
A short circuit has occurred in terminals 1 (FAN13.5 V) - 2: Check IC1029 and IC1030.
A short circuit has occurred in terminals 4 (+15.5 V) - 3: Check IC1025, IC1061, L1029-L1034 and L1036-L1042.
A short circuit has occurred in terminals 5 (+6 V) - 6: Check IC1041, IC1042 and IC1046.
A short circuit has occurred in terminals 8 (3.3 V) - 9: Check L1028, L1050, L1021, L1018, L1016 and L1015.
A short circuit has occurred in terminals 11 (STB3.3 V) - 10: Check L1027.
NO
A
Connector A6 pin 12 changes from LOW to HIGH.
NO
A1
YES
①
Replace the P-Module, then confirm the projector becomes standby mode.
YES
END
NO
②
Replace the Q-Module, then confirm the projector becomes standby mode.
YES
OK
NO
B
Confirm resistance values between G (positive) and E (negative) of IGBTs (Q9606, Q9607, Q9610 and Q9611) are 13-15 kΩ.
NO
B
Replace IGBTs (Q9606, Q9607, Q9610 and Q9611), that the resistance is less than 13 kΩ, then confirm again the resistance values.
NG
YES
B
Confirm resistance values between D (positive) and S (negative) of Q9603 and Q9612 are hundreds kiloohm or more.
NO
B
Replace Q9603/Q9612.
YES
B
Confirm components D9612, D9613, D9615, D9616, D9618, D9619, D9621, D9622, Q9604, Q9605, Q9608 and Q9609 are normal (no damage).
NO
B
Replace every damaged component.
YES
B
Confirm resistance values between the terminals of ICs (IC9602 and IC9603) below are 3 kΩ or more.
6 (positive) - 7 (negative)
3 (positive) - 4 (negative)
NO
B
Replace IC9602/IC9603.
YES
B
Replace Z9601. If the projector does not become standby mode, replace the B-Module.

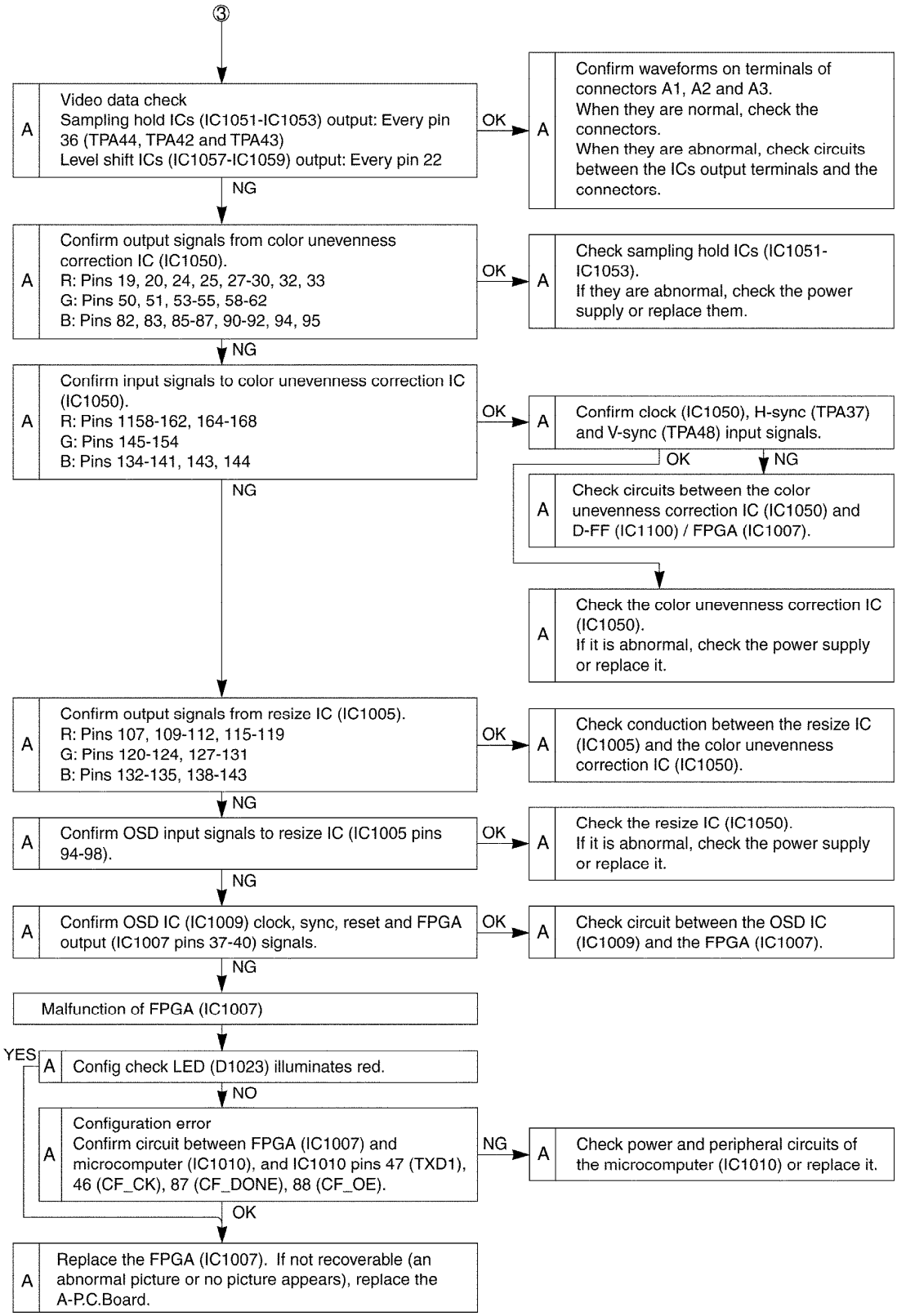

No lamp lights up. (LAMP indicator illuminates.)
Confirm every connector and the lamp unit are connected properly, and the lamp unit cover is installed.
At the same time, confirm the lamp unit fixing screws are tightened.
NO
Connect the connectors or install the cover properly.
YES
When switching from standby mode to an operating mode, every fan is rotated.
NO
Check every fan connector. If the connection is properly and the fan is not rotated, replace it. Then confirm the lamp lights up. (If not, go to the next.)
YES
Confirm every thermosensor is normal.
NO
Replace abnormal thermosensor, then confirm the lamp lights up. (If not, go to the next.)
YES
After keeping MAIN POWER in OFF condition for 3 minutes or more, turn ON the MAIN POWER and press POWER button. Confirm the ballast to generate a high-voltage pulse train and emits a sparking sound.
NO
A
When pressing the POWER button, connector A6 pin 12 changes from LOW to HIGH.
YES
NO
A2
YES
P
Confirm that no short circuit has occurred between connector P2 pins 1 and 3. (Normally, connector P2 pin 1 outputs 390 V ±20 V DC.)
YES
A
When pressing the POWER button, connector A4 pin 2 changes from LOW to HIGH.
NO
A3
NO
P
Confirm that no short circuit has occurred between connector P2 pins 4 and 3. (Normally, connector P2 pin 4 outputs 15 V ±1 V DC.)
YES
NO
①
②

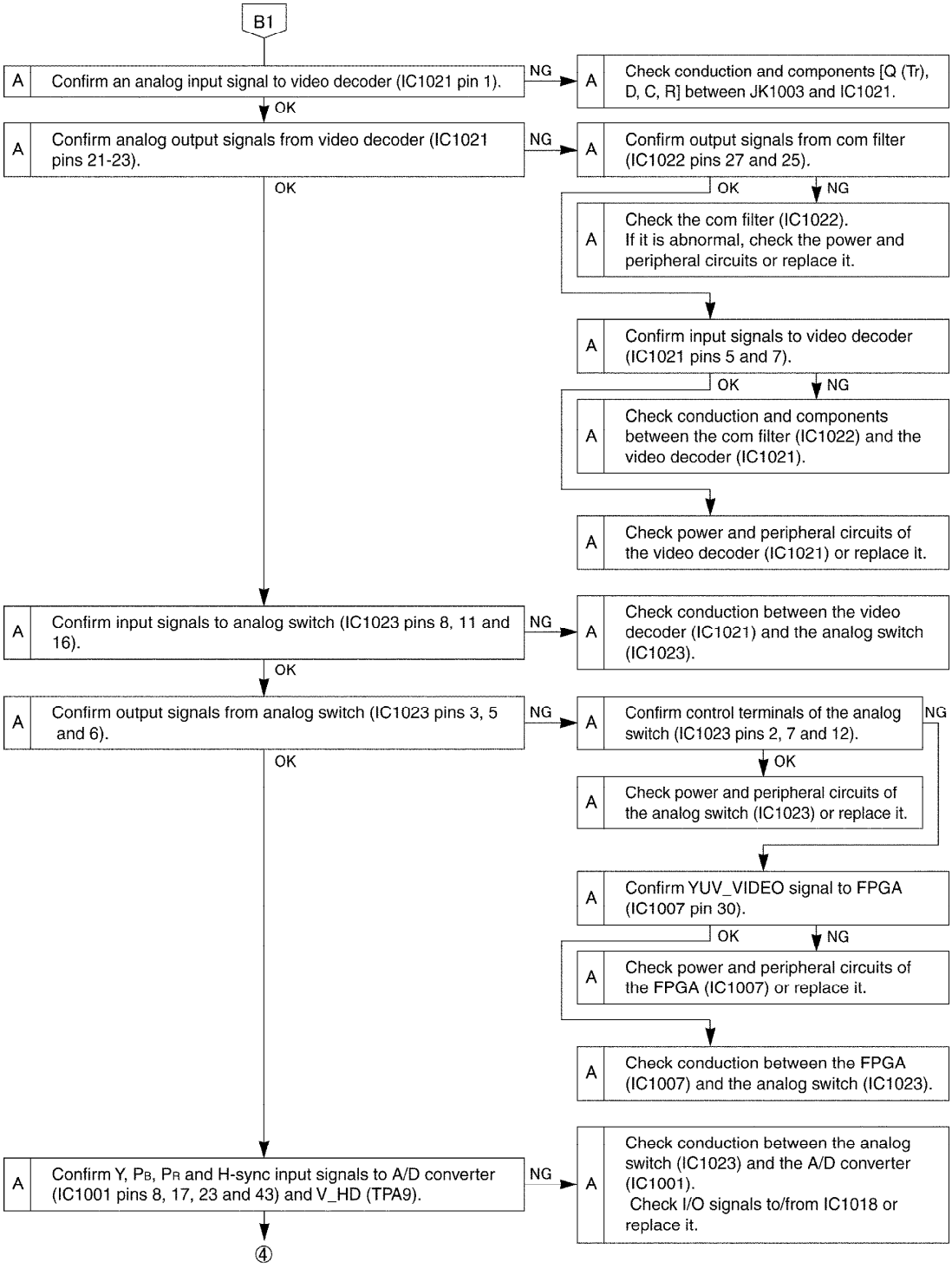

A1
Microcomputer (IC1010) operation check in the standby mode
A
Does LED (D1022) nearby the microcomputer (IC1010) illuminate?
NO
A
The microcomputer is abnormal. Check the microcomputer (IC1010) and circuit around it, crystal oscillator (X1003) and reset IC (IC1016).
YES
A
POWER key check. Check conduction between connector A8 pin 6 (KEY2) and the microcomputer (IC1010) pin 92.
NG
A
Check L1026.
OK
A2
A
Check MAIN/STBY output signal of the microcomputer (IC1010 pin 111).
NG
A
Replace the microcomputer (IC1010).
OK
A
Replace Q1037.

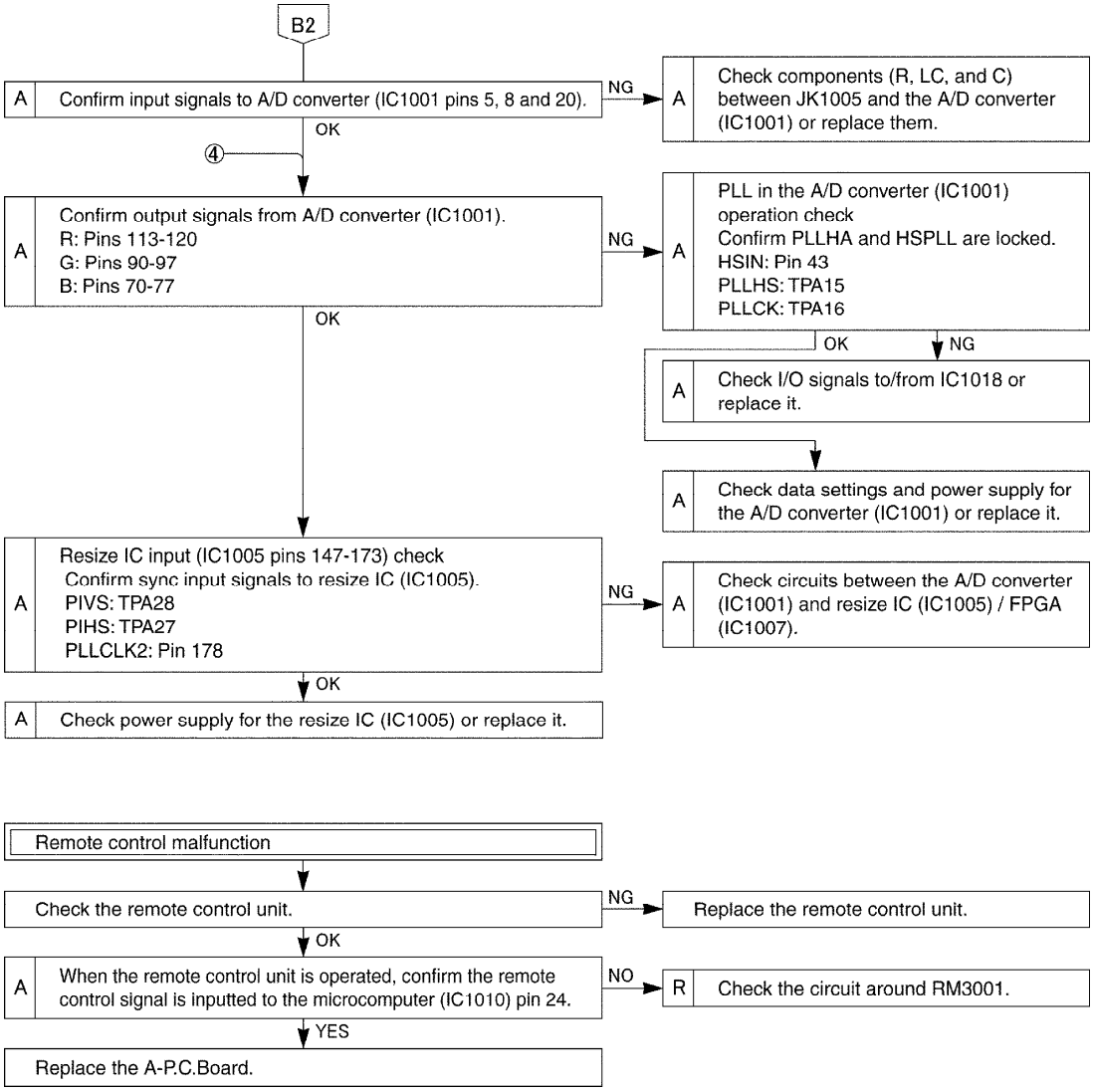

A3
A
Check BLST_ON output signal of the microcomputer (IC1010 pin 85).
NG
A
Replace the microcomputer (IC1010).
OK
A
Replace Q1029.


The lamp lights up abnormally. (LAMP indicator flashes.)
After keeping MAIN POWER in OFF condition for 3 minutes or more, turn ON the MAIN POWER and press POWER button. Then confirm the lamp lights up.
NO
Replace the lamp unit.
YES
If the lamp goes out approximately 10 minutes after it lights up, the cumulative usage time of it exceeds 2 000 hours. Replace the lamp.


A shutdown occurs.
A S
Abnormally high temperature is detected inside the projector and TEMP indicator illuminates or flashes. Check the following:
• Thermosensor connectors (S2 and S1 on S-P.C.Board, A8 on A-P.C.Board) are connected.
• The ambient temperature is less than 45˚C.
• The air filter does not accumulate dust.
Wait until the projector cools enough and turn on the power again.
A
If fan connectors (A15-A18) are not connected or the fans are stopped, a shutdown will occur. (TEMP and LAMP indicators are not illuminating.)
Confirm DC voltage is supplied to the fan.
NO
A
Confirm DC voltage (FAN13.5 V) is supplied to connector A6 pin 1.
YES
NO
Check the P-Module.
YES
Replace the fan.
OK
A
Check the fan voltage control ICs (IC1030 and IC1029).
NG
A
Replace the IC.
If the microcomputer is out of order and temperature of the projector is not controlled, the thermofuse will be blown and the power will be stopped.
A
Microcomputer (IC1010) operation check
NG
A
Check circuit around the microcomputer (IC1010) or replace it.
OK
Replace the A-P.C.Board.
An abnormal picture or no picture appears.
A
Confirm every cable is connected and CPU test LED (D1022) illuminates?
NO
A
Connect or replace the cables.
If the LED does not illuminate, check the microcomputer (IC1010) and circuit around it, crystal oscillator (X1003) and reset IC (IC1016).
YES
No picture appears in VIDEO input mode.
B1
No picture appears in RGB input mode.
B2
No picture appears in S2 VIDEO input (S-VIDEO signal) mode.
A
Check conduction from the input terminals of JK1001 to Q1006/Q1007 and IC1021 pins 43 and 44, and the peripheral circuit.
No picture appears. (Assuming that the microcomputer, lamp and remote control unit are normal.)
A
Confirm output waveforms on connectors A1, A2 and A3.
OK
Replace the LCD block.
NG
A
Confirm clock signals for the drive circuit.
TPA21: 34 MHz, Crystal oscillator (X1001): 68 MHz
NG
A
Confirm the crystal oscillator (X1001).
OK
NG
A
Replace the crystal oscillator (X1001).
OK
A
Replace D-FF (XIC1100).
③


③
A
Video data check
Sampling hold ICs (IC1051-IC1053) output: Every pin 36 (TPA44, TPA42 and TPA43)
Level shift ICs (IC1057-IC1059) output: Every pin 22
OK
A
Confirm waveforms on terminals of connectors A1, A2 and A3.
When they are normal, check the connectors.
When they are abnormal, check circuits between the ICs output terminals and the connectors.
NG
A
Confirm output signals from color unevenness correction IC (IC1050).
R: Pins 19, 20, 24, 25, 27-30, 32, 33
G: Pins 50, 51, 53-55, 58-62
B: Pins 82, 83, 85-87, 90-92, 94, 95
OK
A
Check sampling hold ICs (IC1051-IC1053).
If they are abnormal, check the power supply or replace them.
NG
A
Confirm input signals to color unevenness correction IC (IC1050).
R: Pins 1158-162, 164-168
G: Pins 145-154
B: Pins 134-141, 143, 144
OK
A
Confirm clock (IC1050), H-sync (TPA37) and V-sync (TPA48) input signals.
OK
NG
A
Check circuits between the color unevenness correction IC (IC1050) and D-FF (IC1100) / FPGA (IC1007).
A
Check the color unevenness correction IC (IC1050).
If it is abnormal, check the power supply or replace it.
NG
A
Confirm output signals from resize IC (IC1005).
R: Pins 107, 109-112, 115-119
G: Pins 120-124, 127-131
B: Pins 132-135, 138-143
OK
A
Check conduction between the resize IC (IC1005) and the color unevenness correction IC (IC1050).
NG
A
Confirm OSD input signals to resize IC (IC1005 pins 94-98).
OK
A
Check the resize IC (IC1050).
If it is abnormal, check the power supply or replace it.
NG
A
Confirm OSD IC (IC1009) clock, sync, reset and FPGA output (IC1007 pins 37-40) signals.
OK
A
Check circuit between the OSD IC (IC1009) and the FPGA (IC1007).
NG
Malfunction of FPGA (IC1007)
YES
A
Config check LED (D1023) illuminates red.
NO
A
Configuration error
Confirm circuit between FPGA (IC1007) and microcomputer (IC1010), and IC1010 pins 47 (TXD1), 46 (CF_CK), 87 (CF_DONE), 88 (CF_OE).
NG
A
Check power and peripheral circuits of the microcomputer (IC1010) or replace it.
OK
A
Replace the FPGA (IC1007). If not recoverable (an abnormal picture or no picture appears), replace the A-P.C.Board.


B1
A
Confirm an analog input signal to video decoder (IC1021 pin 1).
NG
Check conduction and components [Q (Tr), D, C, R] between JK1003 and IC1021.
OK
Confirm analog output signals from video decoder (IC1021 pins 21-23).
NG
Confirm output signals from com filter (IC1022 pins 27 and 25).
OK
NG
Check the com filter (IC1022). If it is abnormal, check the power and peripheral circuits or replace it.
OK
Confirm input signals to video decoder (IC1021 pins 5 and 7).
OK
NG
Check conduction and components between the com filter (IC1022) and the video decoder (IC1021).
Check power and peripheral circuits of the video decoder (IC1021) or replace it.
Confirm input signals to analog switch (IC1023 pins 8, 11 and 16).
NG
Check conduction between the video decoder (IC1021) and the analog switch (IC1023).
OK
Confirm output signals from analog switch (IC1023 pins 3, 5 and 6).
NG
Confirm control terminals of the analog switch (IC1023 pins 2, 7 and 12).
NG
OK
Check power and peripheral circuits of the analog switch (IC1023) or replace it.
OK
Confirm YUV_VIDEO signal to FPGA (IC1007 pin 30).
OK
NG
Check power and peripheral circuits of the FPGA (IC1007) or replace it.
Check conduction between the FPGA (IC1007) and the analog switch (IC1023).
Confirm Y, PB, PR and H-sync input signals to A/D converter (IC1001 pins 8, 17, 23 and 43) and V_HD (TPA9).
NG
Check conduction between the analog switch (IC1023) and the A/D converter (IC1001).
Check I/O signals to/from IC1018 or replace it.
④



8. Interconnection Block Diagram

8.1. Interconnection Block Diagram (1/2)

8.2. Interconnection Block Diagram (2/2)

9. Block Diagram

9.1. Power Supply

9.2. Signal Processing (1/2)

9.3. Signal Processing (2/2)

10. Schematic Diagram

Schematic Diagram for Model PT-AE100E

Important Safety Notice

Components identified by the international symbol ⚠ have special characteristics important for safety.When replacing any of these components, use only the manufacturer's specified ones.

Schematic Diagram for Model PT-AE100U

IMPORTANT SAFETY NOTICE

THE SHADED AREA ON THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM FIRE AND ELECTRICAL SHOCK HAZARDS.
WHEN SERVICING, IT IS ESSENTIAL THAT ONLY MANUFACTURER'S SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE SHADED AREAS OF THE SCHEMATIC.

Notes:

1. **Resistor**
   All the resistors are carbon 1/4W resistors, unless marked as follows:The unit of resistance is an OHM [Ω] (K=1 000 M=1 000 000).
   - ○ : Nonflammable
   - ⊠ : Metal Oxide
   - △ : Solid
   - ◎ : Metal Film
   - ⊘ : Wire Wound
   - ⊗ : Fuse
2. **Capacitor**
   - ⊗ : Temperature Compensation
   - : Electrolytic
   - Ⓜ : Polyester
   - NP : Bipolar
   - ⓜ : Metalized Polyester
   - Ⓣ : Dipped Tantalum
   - ⊠ : Polypropylene
   - Ⓩ : Z-Type
3. **Coil**
   The unit of inductance is a μH, unless otherwise noted.
4. **Test Point**
   - : Test Point
5. **Voltage Measurement**
   The voltage is measured by an electronic voltmeter receiving the colorbar signal when all the customer's controls are set to the standard condition.
6. **Color code for the links between diagrams and circuit boards**

From/To		To/From	Color code
Block diagram	⟷	Schematic diagram	Magenta
Schematic diagram	⟷	Schematic diagram	Green
Schematic diagram	⟷	Circuit boards	Yellow
Schematic diagram	⟷	Waveforms	Cyan (Light blue)

7. **HOT and COLD indications**
   The power circuit board contains a circuit area using a separate power supply to isolate the ground connection. The circuit is defined by HOT and COLD indications in the schematic diagram. Take the precautions below:
8. **This schematic diagram is the latest at the time of printing and the subject to change without notice.**

Precautions:

1. NEVER touch the HOT part or the HOT and COLD parts at the same time, or you may get an electric shock.
2. NEVER short-circuit the HOT and COLD circuits, or the fuse may blow and the parts may break.
3. NEVER connect an instrument such oscilloscope to the HOT and COLD circuit simultaneously, or the fuse may blow.Connect the ground of instruments to the ground of the circuit being measured.
4. MAKE SURE to unplug the power cord from the power outlet before removing the chassis.

10.1. A-P.C.Board (1/4)

10.2. A-P.C.Board (2/4)

10.3. A-P.C.Board (3/4)

10.4. A-P.C.Board (4/4)

10.5. S-P.C.Board, R-P.C.Board

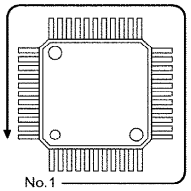
10.6. B-Module

11. Circuit Boards

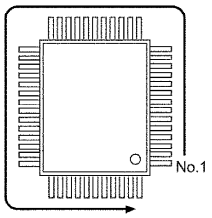
11.1. A-P.CBoard (Foil Side) S-P.C.Board

11.2. A-P.C.Board (Component Side)

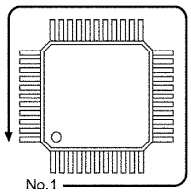
12. Terminal guide of ICs and transistors



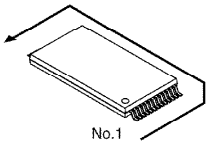
SH7040	112 Pin
C1ZBZ0001965	144 Pin
C1AB00001524	208 Pin
C1AB00001516	176 Pin



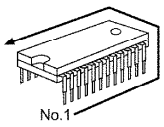
C3HBMJ000004	100 Pin
C0FBAD000067	128 Pin
C1AB00001516	48 Pin



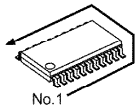
C1AB00001523	48 Pin
C1AB00001522	48 Pin



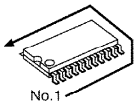
TVRJ603 48 Pin



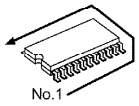
C1AA00000392 20 Pin



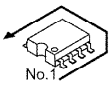
C0ZBZ0000624	28 Pin
C0JBAR000245	16 Pin
C1AB00000740	16 Pin
C0EBB0000024	8 Pin
C0FBBD000087	24 Pin
C0JBAF000315	20 Pin



C1BB00000646 20 Pin



C1AB00001555 28 Pin



C3EBCC000045	8 Pin
C3EBJC000037	8 Pin

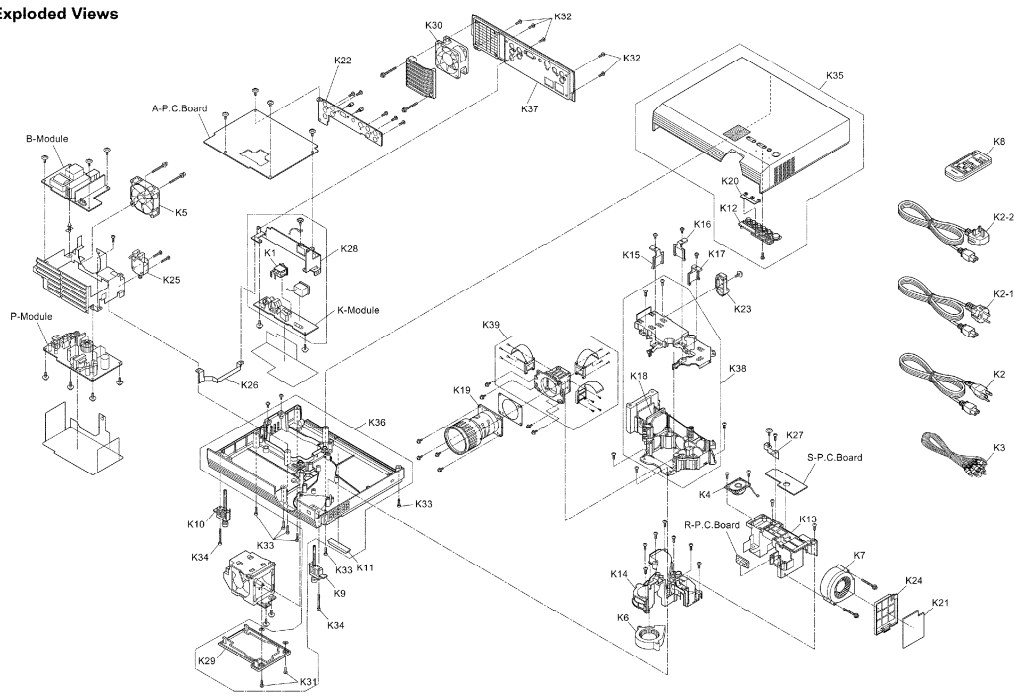
C0DBEZE00002	5 Pin
C0DBEZG00004	5 Pin

AN78L12M	3 Pin
AN78L05M	3 Pin

2SB709A
2SD601AR
2SB710A

13. Exploded Views

Exploded Views



14. Replacement Parts List

Important Safety Notice

Components identified by the International symbol ⚠ have special characteristics important for safety.
When replacing any of these components, use only the manufacturer's specified parts.

Abbreviation of part name and description

1. Resistor

Example:

ERD25TJ104 C 100KOHM, J, 1/4W

TYPE ALLOWANCE

TYPE	ALLOWANCE
C : Carbon	F : ± 1 %
F : Fuse	G : ± 2 %
M : Metal Oxide	J : ± 5 %
Metal Film	K : ±10%
S : Solid	M : ±20%
W : Wire Wound	

2. Capacitor

Example:

ECKF1H103ZF C 0.01PF, Z, 50V

TYPE ALLOWANCE

TYPE	ALLOWANCE
C : Ceramic	C : ±0.25 pF
E : Electrolytic	D : ±0.5 pF
P : Polyester	F : ± 1 pF
PP : Polypropylene	J : ± 5 %
S : Polystyrol	K : ±10 %
T : Tantalum	L : ±15 %
	M : ±20 %
	P : +100 %, -0 %
	Z : +80 %, -20 %

Notes:

For G** of Ref. No., not indicate illustration of it part on "Exploded Views".
Printed circuit board assembly with mark (RTL) is no longer available after production discontinuation of the complete set.

Ref. No.	Part No.	Part Name & Description	Remarks
[MECHANICAL PARTS]			
K1	AJ7241B	POWER SWITCH	⚠
G1	CR2025/1B	BATTERY	
G2	D4CDH5030001	THERMISTER	
K2	K2CG3FR00001	POWER CORD	⚠PT-AE100U
K2-1	K2CM3FR00001	POWER CORD	⚠PT-AE100E
K2-2	K2CT3FR00001	POWER CORD	⚠PT-AE100E
K3	K2KA2FA00001	AV CABLE	
K4	L0AA04C00002	SPEAKER	
K5	L6FAKCEH0001	POWER SUPPLY FAN	⚠
K6	L6FCJC9H0001	PBS FAN	⚠
K7	L6FCKEBH0001	DUCT FAN	⚠
K8	N2QADC000003	REMOTE CONTROLLER	
K9	TBLB3065	ADJUST LEG (RIGHT)	
K10	TBLB3066	ADJUST LEG (LEFT)	
K11	TBLG3042	RUBBER LEG(REAR)	
G3	TBME444	MODEL NAME PLATE	PT-AE100U
	TBME445	MODEL NAME PLATE	PT-AE100E
K12	TBXA34001	CONTROL BUTTON	
K13	TEEC0030	DUCT	
K14	TEEC5063	OPTICAL DUCT	
K15	TENC0117	POLARIZING PLATE/IN (R)	
K16	TENC0118	POLARIZING PLATE/IN (G)	
K17	TENC0119	POLARIZING PLATE/IN (B)	
G4	THEC052N	D-SUB SCREW	
K18	TKGF0056	PBS ARRAY	
K19	TKGF0057	LENS	
K20	TKKC5130	LED PLATE	
G5	TKKL5208	LENS CAP	
K21	TKNE044	FILTER	
G6	TKPA57101	HALF MIRROR (RIGHT)	
G7	TKPA57202	HALF MIRROR (LEFT)	PT-AE100U
	TKPA57203	HALF MIRROR (LEFT)	PT-AE100E
K22	TKZF5018	TERMINAL METAL	
G8	TKZJ5035	VENTILATION FAN METAL	
G9	TMKK145	RUBBER WASHER	
G10	TMKX100	WASHER	
G11	TMKX332	INSULATION SHEET	
G12	TMKX333	INSULATION SHHET	
G13	TMME196	SPACER	
K23	TMXC017	TEMP FUSE METAL	
K24	TMZX5018	FILTER COVER	
G14	TPCB14902	CARTON	PT-AE100U
	TPCB14903	CARTON	PT-AE100E
G15	TPDF0758	CUSHION	
G16	TPDF0759	CARRING CASE CUSHION	
G17	TPDF0818	ACCESSARY PACKING CASE	
G18	TPEH124	SET COVER	
G19	TPEP004-1	CARRING CASE	PT-AE100U
	TPEP004	CARRING CASE	PT-AE100E
G20	TQD612848-1	SHEET	
G21	TQF86202	LABEL	

Ref. No.	Part No.	Part Name & Description	Remarks
G22	TQZC168	FAN BAG	⚠PT-AE100U
	TQZC169	FAN BAG	⚠PT-AE100E
K25	TSEX8005	SWITCH	⚠K0ADBF000007
G23	TUCC5748	POWER BOX	
K26	TUCX5093	EARTH METAL	
K27	TUCX5094	EARTH METAL	
K28	TUWC034	CIRCUIT BOARD (K) METAL	
K29	TXFKL01VJJ3	LAMP COVER ASSY	
G24	TXJ/K1VJJ3	TEMPEPATURE FUSE	⚠
K30	UDQF6TH01C	VENTILATION FAN	⚠
K31	TMKX360	SPACER	
K32	XSB3+8FN	SCREW	
K33	XSN4+10	SCREW	
G25	XSN4+15	SCREW	
K34	XSN4+30	SCREW	
G26	XTBT969Z	SCREW	
G27	XTN3+6G	SCREW	
G28	XTV3+10J	SCREW	
G29	XTV3+8AFN	SCREW	
G30	XTW3+8P	TAPPING SCREW	
G31	XYN2+J6	SCREW	
G32	XYN3+F20	SCREW	
G33	XYN3+F30FZ	SCREW	
G34	XYN3+F6	SCREW	
G35	XYN3+F8	SCREW	
G36	XYN3+J8	SCREW	
G37	XYN4+E8	SCREW	
K35	TXFTT99PLHZ	UPPER COVER ASSY	
K36	TXFKF99PLHZ	BOTTOM COVER ASSY	PT-AE100U
	TXFKF99PLJZ	BOTTOM COVER ASSY	PT-AE100E
K37	TXFKP99VJJ3	TERMINAL COVER	
K38	TXFEC99VJJ3	ANALYSIS BLOCK	
K39	TXFEN99VJJ3	OPTICAL BASE BLOCK	
[INTEGRATED CIRCUIT]			
IC101	C0DBZZZ00046	I.C	
IC151	MIP289	I.C	
IC1001	C0FBAD000067	I.C	
IC1002	TC7SH08F	I.C	C0JBAA000101
IC1003	M52036SP	I.C	C1AA00000392
IC1004	MC14053BF	I.C	C0JBAR000023
IC1005	C1AB00001524	I.C	
IC1006	C3HBMJ000004	I.C	
IC1007	C1ZBZ0001965	I.C	
IC1009	C0ZBZ0000624	I.C	
IC1010	C2GBC0000135	I.C	
IC1011	TVRJ603-1	I.C	
IC1012	TC74LCX574FT	I.C	C0JBAF000315
IC1013	TC7SH32FTL	I.C	C0JBAE000146
IC1016	M51957BFP	I.C	C0EBB0000024
IC1017	C3EBJC000037	I.C	
IC1018	C0JBAZ001488	I.C	
IC1021	C1AB00001556	I.C	
IC1022	C1AB00001555	I.C	

Ref. No.	Part No.	Part Name & Description	Remarks
IC1023	M52065FP	I.C	C1AB00000739
IC1024	C3EBCC000045	I.C	
IC1025	AN78L12M	I.C	
IC1026	C1BB00000646	I.C	
IC1029	C0DBEZE00002	I.C	
IC1030	C0DBEZE00002	I.C	
IC1041	C0CBADD00009	I.C	
IC1042	C0CBABD00015	I.C	
IC1043	PQ07VZ012ZP	I.C	C0DBEZG00004
IC1044	C0CBAAD00008	I.C	
IC1045	PQ07VZ012ZP	I.C	C0DBEZG00004
IC1046	C0CBADD00009	I.C	
IC1050	C1AB00001516	I.C	
IC1051	C1AB00001523	I.C	
IC1052	C1AB00001523	I.C	
IC1053	C1AB00001523	I.C	
IC1057	C1AB00001522	I.C	
IC1058	C1AB00001522	I.C	
IC1059	C1AB00001522	I.C	
IC1060	M62398FP	I.C	C0FBBD000087
IC1061	AN78L12M	I.C	
IC1062	AN78L05M	I.C	
IC1100	C0JBAF000367	I.C	
IC9602	C0ZAZ0000077	I.C	
IC9603	C0ZAZ0000077	I.C	
IC9701	C0DBALC00005	I.C	
IC9707	AN78L09M	I.C	
IC9708	AN78L05M	I.C	
[TRANSISTORS]			
Q101	2SK2837	TRANSISTOR	B1DEHQ000001
Q131	B1DEGQ000017	TRANSISTOR	
Q251	UN2211	TRANSISTOR	UNR2211
Q1001	2SD601AR	TRANSISTOR	2SD0601AR
Q1002	2SD601AR	TRANSISTOR	2SD0601AR
Q1003	2SD601AR	TRANSISTOR	2SD0601AR
Q1004	2SD601AR	TRANSISTOR	2SD0601AR
Q1005	2SD601AR	TRANSISTOR	2SD0601AR
Q1006	2SD601AR	TRANSISTOR	2SD0601AR
Q1007	2SD601AR	TRANSISTOR	2SD0601AR
Q1008	2SD601AR	TRANSISTOR	2SD0601AR
Q1009	2SB709A	TRANSISTOR	2SB0709A
Q1010	2SD601AR	TRANSISTOR	2SD0601AR
Q1011	2SB709A	TRANSISTOR	2SB0709A
Q1012	2SB709A	TRANSISTOR	2SB0709A
Q1014	2SD601AR	TRANSISTOR	2SD0601AR
Q1016	2SD601AR	TRANSISTOR	2SD0601AR
Q1018	2SD601AR	TRANSISTOR	2SD0601AR
Q1019	2SD601AR	TRANSISTOR	2SD0601AR
Q1020	2SD601AR	TRANSISTOR	2SD0601AR
Q1023	2SD601AR	TRANSISTOR	2SD0601AR
Q1024	2SB709A	TRANSISTOR	2SB0709A
Q1025	2SD601AR	TRANSISTOR	2SD0601AR
Q1026	2SB709A	TRANSISTOR	2SB0709A
Q1027	2SD601AR	TRANSISTOR	2SD0601AR
Q1028	2SB709A	TRANSISTOR	2SB0709A

Ref. No.	Part No.	Part Name & Description	Remarks
Q1029	2SD601AR	TRANSISTOR	2SD0601AR
Q1030	2SD601AR	TRANSISTOR	2SD0601AR
Q1031	2SD601AR	TRANSISTOR	2SD0601AR
Q1037	2SD601AR	TRANSISTOR	2SD0601AR
Q1039	2SB709A	TRANSISTOR	2SB0709A
Q1040	2SB709A	TRANSISTOR	2SB0709A
Q1041	2SB709A	TRANSISTOR	2SB0709A
Q1042	2SD601AR	TRANSISTOR	2SD0601AR
Q1043	2SD601AR	TRANSISTOR	2SD0601AR
Q1044	2SD601AR	TRANSISTOR	2SD0601AR
Q1045	2SD601AR	TRANSISTOR	2SD0601AR
Q1046	2SB709A	TRANSISTOR	2SB0709A
Q1047	2SD601AR	TRANSISTOR	2SD0601AR
Q1048	2SB709A	TRANSISTOR	2SB0709A
Q1049	2SD601AR	TRANSISTOR	2SD0601AR
Q1050	2SB709A	TRANSISTOR	2SB0709A
Q1051	2SD601AR	TRANSISTOR	2SD0601AR
Q1052	2SB709A	TRANSISTOR	2SB0709A
Q1053	2SD601AR	TRANSISTOR	2SD0601AR
Q1054	2SB709A	TRANSISTOR	2SB0709A
Q1055	2SD601AR	TRANSISTOR	2SD0601AR
Q1056	2SB709A	TRANSISTOR	2SB0709A
Q1057	2SD601AR	TRANSISTOR	2SD0601AR
Q1070	2SK620	FET	2SK0620
Q1071	2SK620	FET	2SK0620
Q1073	2SD601AR	TRANSISTOR	2SD0601AR
Q1074	2SD601AR	TRANSISTOR	2SD0601AR
Q1075	2SB709A	TRANSISTOR	2SB0709A
Q2001	2SD601AR	TRANSISTOR	2SD0601AR
Q2002	2SD601AR	TRANSISTOR	2SD0601AR
Q2003	2SB709A	TRANSISTOR	2SB0709A
Q2004	2SB709A	TRANSISTOR	2SB0709A
Q9603	B1DEGQ000017	TRANSISTOR	
Q9604	2SB710A	TRANSISTOR	2SB0710A
Q9605	2SB710A	TRANSISTOR	2SB0710A
Q9606	B1JABQ000001	TRANSISTOR	
Q9607	B1JABQ000001	TRANSISTOR	
Q9608	2SB710A	TRANSISTOR	2SB0710A
Q9609	2SB710A	TRANSISTOR	2SB0710A
Q9610	B1JABQ000001	TRANSISTOR	
Q9611	B1JABQ000001	TRANSISTOR	
Q9612	B1DEGQ000017	TRANSISTOR	
[DIODE]			
D101	B0FBBR000011	DIODE	⚠
D151	S1VBA60	DIODE	⚠
D1001	MA3056M	ZENER DIODE	MAZ30560M
D1002	MA3033H	DIODE	MAZ30330HL
D1003	MA3033H	DIODE	MAZ30330HL
D1004	MA3056M	ZENER DIODE	MAZ30560M
D1005	MA3056M	ZENER DIODE	MAZ30560M
D1006	MA3033H	DIODE	MAZ30330HL
D1007	MA3056M	ZENER DIODE	MAZ30560M
D1008	MA3056M	ZENER DIODE	MAZ30560M
D1009	MA157A	DIODE	MA3X157A

Ref. No.	Part No.	Part Name & Description	Remarks
D1010	MA157A	DIODE	MA3X157A
D1011	MA157A	DIODE	MA3X157A
D1012	MA157A	DIODE	MA3X157A
D1013	MA157A	DIODE	MA3X157A
D1014	MA157A	DIODE	MA3X157A
D1015	MA157A	DIODE	MA3X157A
D1016	MA3056M	ZENER DIODE	MAZ30560M
D1017	MA3056M	ZENER DIODE	MAZ30560M
D1021	MA157A	DIODE	MA3X157A
D1022	LNJ208R8ARA	LED	
D1023	LNJ208R8ARA	LED	
D1024	LNJ208R8ARA	LED	
D1027	MA157A	DIODE	MA3X157A
D1030	MA157A	DIODE	MA3X157A
D1031	MA157A	DIODE	MA3X157A
D1065	D4CE45030001	THERMISTOR	
D2001	LNJ208R8ARA	LED	
D2002	LNJ208R8ARA	LED	
D2003	LNJ107W5ARA1	LED	
D3001	MA157A	DIODE	MA3X157A
D9612	MA158	DIODE	MA3X158
D9613	MA720	DIODE	MA3X720
D9615	MA158	DIODE	MA3X158
D9616	MA720	DIODE	MA3X720
D9618	MA158	DIODE	MA3X158
D9619	MA720	DIODE	MA3X720
D9621	MA158	DIODE	MA3X158
D9622	MA720	DIODE	MA3X720
[COILS]			
L1001	EXCML16A270	BEAD CORE	
L1002	EXCML16A270	BEAD CORE	
L1003	ELJFA470JB	COIL	
L1004	ELJFA470JB	COIL	
L1006	ELJFA270JB	CHIP COIL	
L1007	ELJFA270JB	CHIP COIL	
L1008	EXCML16A270	BEAD CORE	
L1009	EXCML16A270	BEAD CORE	
L1010	EXCML16A270	BEAD CORE	
L1011	EXCML16A270	BEAD CORE	
L1012	EXCML16A270	BEAD CORE	
L1013	EXCML16A270	BEAD CORE	
L1014	EXCML16A270	BEAD CORE	
L1015	EXCML16A270	BEAD CORE	
L1016	EXCML16A270	BEAD CORE	
L1017	ELJFA470JB	COIL	
L1018	EXCML16A270	BEAD CORE	
L1019	ELJFA6R8JB	CHIP COIL	
L1020	ELJFA470JB	COIL	
L1021	EXCML16A270	BEAD CORE	
L1022	EXCML16A270	BEAD CORE	
L1024	EXCML16A270	BEAD CORE	
L1025	EXCML16A270	BEAD CORE	
L1026	EXCML16A270	BEAD CORE	
L1027	EXCML16A270	BEAD CORE	
L1028	EXCML16A270	BEAD CORE	

Ref. No.	Part No.	Part Name & Description	Remarks
L1029	EXCML16A270	BEAD CORE	
L1030	EXCML16A270	BEAD CORE	
L1031	EXCML16A270	BEAD CORE	
L1032	EXCML16A270	BEAD CORE	
L1033	EXCML16A270	BEAD CORE	
L1034	EXCML16A270	BEAD CORE	
L1035	EXCML16A270	BEAD CORE	
L1036	EXCML16A270	BEAD CORE	
L1037	EXCML16A270	BEAD CORE	
L1038	EXCML16A270	BEAD CORE	
L1039	EXCML16A270	BEAD CORE	
L1040	EXCML16A270	BEAD CORE	
L1041	EXCML16A270	BEAD CORE	
L1042	EXCML16A270	BEAD CORE	
L1050	EXCML16A270	BEAD CORE	
L1051	EXCML16A270	BEAD CORE	
L1052	EXCML16A270	BEAD CORE	
LC1001	ELKE471FA	EMI FILTER	
LC1002	ELKE471FA	EMI FILTER	
LC1003	ELKE470FA	NOISE FILTER	
LC1004	ELKE470FA	NOISE FILTER	
LC1005	ELKE470FA	NOISE FILTER	
[RESISTORS]			
R134	ERX2SJ3R3	M 3.3 OHM, 2W	
R151	ERDS1TJ100	C 10 OHM, J,1/2W	
R1001	ERJ3GEYJ223	M 22KOHM,J,1/16W	
R1002	ERJ3GEYJ223	M 22KOHM,J,1/16W	
R1003	ERJ6ENF75R0	M 75 OHM, 1/10W	
R1004	ERJ6ENF75R0	M 75 OHM, 1/10W	
R1005	ERJ6ENF75R0	M 75 OHM, 1/10W	
R1006	ERJ3GEYJ183	M 18KOHM,J,1/16W	
R1007	ERJ3GEYJ331	M 330 OHM,J,1/16W	
R1008	ERJ3GEYJ331	M 330 OHM,J,1/16W	
R1009	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1010	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1011	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	
R1012	ERJ3GEYJ104	M 100KOHM,J,1/16W	
R1013	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1014	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	
R1015	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1016	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	
R1017	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1018	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1019	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1020	ERJ6ENF75R0	M 75 OHM, 1/10W	
R1021	ERJ6ENF75R0	M 75 OHM, 1/10W	
R1022	ERJ3GEYJ100	M 10 OHM,J,1/16W	
R1026	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1027	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1028	ERJ3GEYJ331	M 330 OHM,J,1/16W	
R1029	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1030	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1031	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1032	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1033	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	

Ref. No.	Part No.	Part Name & Description	Remarks
R1034	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	
R1035	ERJ3GEYJ471	M 470 OHM,J,1/16W	
R1036	ERJ3GEYJ471	M 470 OHM,J,1/16W	
R1037	ERJ3GEYJ471	M 470 OHM,J,1/16W	
R1038	ERJ3GEYJ471	M 470 OHM,J,1/16W	
R1039	ERJ6ENF75R0	M 75 OHM, 1/10W	
R1040	ERJ6ENF75R0	M 75 OHM, 1/10W	
R1041	ERJ6ENF75R0	M 75 OHM, 1/10W	
R1042	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1043	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1044	ERJ3GEYJ471	M 470 OHM,J,1/16W	
R1045	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1046	ERJ3GEYJ473	M 47K OHM,J,1/16W	
R1047	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1048	ERJ3GEYJ122	M 1.2KOHM,J,1/16W	
R1049	ERJ3GEYJ223	M 22KOHM,J,1/16W	
R1050	ERJ3GEYJ223	M 22KOHM,J,1/16W	
R1051	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R1052	ERJ3GEYJ273	M 27KOHM,J,1/16W	
R1053	ERJ3GEYJ392	M 3.9KOHM,J,1/16W	
R1055	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1056	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1057	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1058	ERJ1TYJ470	RESISTOR	
R1059	ERJ1TYJ470	RESISTOR	
R1060	ERJ1TYJ470	RESISTOR	
R1062	ERJ1TYJ470	RESISTOR	
R1063	ERJ3GEYJ683	M 68KOHM,J,1/16W	
R1064	ERJ3GEYJ683	M 68KOHM,J,1/16W	
R1065	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1066	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1067	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1068	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1069	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1070	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	
R1071	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1072	ERJ3GEYJ183	M 18KOHM,J,1/16W	
R1073	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R1074	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1075	ERJ3GEYJ683	M 68KOHM,J,1/16W	
R1076	ERJ3GEYJ683	M 68KOHM,J,1/16W	
R1077	ERJ3GEYJ471	M 470 OHM,J,1/16W	
R1078	ERJ3GEYJ821	M 820 OHM,J,1/16W	
R1079	ERJ3GEYJ821	M 820 OHM,J,1/16W	
R1080	ERJ6ENF2001	M 2KOHM, 1/10W	
R1081	ERJ3GEYJ180	M 18 OHM,J,1/16W	
R1082	ERJ3GEYJ223	M 22KOHM,J,1/16W	
R1083	ERJ3GEYJ223	M 22KOHM,J,1/16W	
R1084	ERJ3GEYJ180	M 18 OHM,J,1/16W	
R1085	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1086	ERJ3GEYJ183	M 18KOHM,J,1/16W	
R1087	ERJ3GEYJ182	M 1.8KOHM,J,1/16W	
R1088	ERJ3GEYJ331	M 330 OHM,J,1/16W	
R1089	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1090	ERJ6ENF1000	M 100 OHM, 1/10W	
R1091	ERJ3GEYJ683	M 68KOHM,J,1/16W	
R1092	ERJ3GEYJ683	M 68KOHM,J,1/16W	

Ref. No.	Part No.	Part Name & Description	Remarks
R1093	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	
R1094	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1095	ERJ3GEYJ222	M 2.2KOHMJ,J1/16W	
R1096	ERJ3GEYJ180	M 18 OHM,J,1/16W	
R1097	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1098	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1100	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	
R1101	ERJ3GEYJ333	M 33K OHM,J,1/16W	
R1102	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1103	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1104	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1105	ERJ6ENF2001	M 2KOHM, 1/10W	
R1106	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1111	ERJ3GEYJ471	M 470 OHM,J,1/16W	
R1113	ERJ6ENF1000	M 100 OHM, 1/10W	
R1114	ERJ3GEYJ681	M 680 OHM,J,1/16W	
R1115	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	
R1116	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1117	ERJ3GEYJ333	M 33K OHM,J,1/16W	
R1118	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1119	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	
R1120	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1121	ERJ3GEYJ223	M 22K OHM,J,1/16W	
R1125	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1126	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1127	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1128	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1129	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1130	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1131	ERJ6GEYJ3R3	M 3.3OHM,J,1/10W	
R1132	ERJ6GEYJ3R3	M 3.3OHM,J,1/10W	
R1133	ERJ6GEYJ3R3	M 3.3OHM,J,1/10W	
R1134	ERJ6GEYJ3R3	M 3.3OHM,J,1/10W	
R1135	ERJ3GEYJ152	M 1.5KOHM,J,1/16W	
R1136	ERJ3GEYJ391	M 390 OHM,J,1/16W	D0GB391JA002
R1137	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1138	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1139	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1140	ERJ3GEYJ151	M 150 OHM,J,1/16W	
R1141	ERJ3GEYJ151	M 150 OHM,J,1/16W	
R1142	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1143	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1144	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R1145	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R1146	EXB38V220J	RESISTOR ARRAY	
R1148	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R1149	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1150	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R1151	ERJ3GEYJ104	M 100KOHM,J,1/16W	
R1152	EXB38V101J	RESISTOR ARRAY	
R1153	ERJ3GEYJ222	M 2.2KOHM,J,1/16W	
R1154	ERJ6ENF3301	M 3.3KOHM, 1/10W	
R1155	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1156	ERJ3GEYJ183	M 18K OHM,J,1/16W	
R1157	EXB38V101J	RESISTOR ARRAY	
R1158	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R1159	ERJ3GEYJ103	M 10K OHM,J,1/16W	

Ref. No.	Part No.	Part Name & Description	Remarks
R1164	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1165	ERJ3GEYJ183	M 18K OHM,J,1/16W	
R1167	ERJ6ENF2702	M 27KOHM, 1/10W	
R1168	ERJ3GEYJ182	M 1.8KOHM,J,1/16W	
R1169	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1170	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1171	ERJ3GEYJ182	M 1.8KOHM,J,1/16W	
R1172	ERJ3GEYJ272	M 2.7KOHMJ,J1/16W	
R1173	ERJ3GEYJ182	M 1.8KOHM,J,1/16W	
R1174	EXB38V101J	RESISTOR ARRAY	
R1175	EXB38V101J	RESISTOR ARRAY	
R1178	EXB38V101J	RESISTOR ARRAY	
R1179	EXB38V101J	RESISTOR ARRAY	
R1180	EXB38V220J	RESISTOR ARRAY	
R1181	EXB38V220J	RESISTOR ARRAY	
R1182	EXB38V220J	RESISTOR ARRAY	
R1183	EXB38V220J	RESISTOR ARRAY	
R1184	EXB38V220J	RESISTOR ARRAY	
R1185	EXB38V220J	RESISTOR ARRAY	
R1186	ERJ6ENF1001	M 1KOHM, 1/10W	
R1188	ERJ6ENF1001	M 1KOHM, 1/10W	
R1191	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1193	EXB38V560J	RESISTOR ARRAY	
R1194	EXB38V560J	RESISTOR ARRAY	
R1196	EXB38V560J	RESISTOR ARRAY	
R1198	EXB38V560J	RESISTOR ARRAY	
R1200	EXB38V560J	RESISTOR ARRAY	
R1203	EXB38V560J	RESISTOR ARRAY	
R1205	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1206	EXB38V560J	RESISTOR ARRAY	
R1209	EXB38V560J	RESISTOR ARRAY	
R1211	ERJ3GEYJ331	M 330 OHM,J,1/16W	
R1212	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1217	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1219	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1220	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1221	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1222	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1223	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1226	ERJ6GEYJ220	M 22 OHM,J,1/10W	ERJ6GEYJ220V
R1228	ERJ6GEYJ220	M 22 OHM,J,1/10W	ERJ6GEYJ220V
R1230	ERJ6GEYJ220	M 22 OHM,J,1/10W	ERJ6GEYJ220V
R1232	ERJ6GEYJ220	M 22 OHM,J,1/10W	ERJ6GEYJ220V
R1234	EXB38V220J	RESISTOR ARRAY	
R1235	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1236	ERJ3GEYJ822	M 8.2KOHM,J,1/16W	
R1238	ERJ3GEYJ473	M 47K OHM,J,1/16W	
R1240	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1241	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1242	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1246	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1247	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1248	ERJ3GEYJ272	M 2.7KOHMJ,J1/16W	
R1249	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1250	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1252	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1253	ERJ3GEYJ102	M 1K OHM,J,1/16W	

Ref. No.	Part No.	Part Name & Description	Remarks
R1254	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1256	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1257	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1258	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1259	ERJ3GEYJ221	M 220 OHM,J,1/16W	
R1260	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1262	ERJ3GEYJ272	M 2.7KOHMJ,J1/16W	
R1264	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1265	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1268	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1269	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1270	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1272	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1273	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1274	EXB38V103J	RESISTOR ARRAY	
R1276	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1278	EXB38V220J	RESISTOR ARRAY	
R1279	EXB38V220J	RESISTOR ARRAY	
R1280	ERJ6ENF75R0	M 75 OHM, 1/10W	
R1281	EXB38V220J	RESISTOR ARRAY	
R1282	EXB38V220J	RESISTOR ARRAY	
R1284	EXB38V103J	RESISTOR ARRAY	
R1285	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1286	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1288	EXB38V103J	RESISTOR ARRAY	
R1289	EXB38V220J	RESISTOR ARRAY	
R1291	EXB38V103J	RESISTOR ARRAY	
R1293	EXB38V103J	RESISTOR ARRAY	
R1298	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1299	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1301	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1302	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1303	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1304	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1305	ERJ3GEYJ471	M 470 OHM,J,1/16W	
R1306	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1307	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1308	ERJ3GEYJ331	M 330 OHM,J,1/16W	
R1309	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1310	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1311	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1312	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R1313	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1314	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1315	EXB38V220J	RESISTOR ARRAY	
R1316	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1322	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1323	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1324	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	
R1325	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1326	EXB38V220J	RESISTOR ARRAY	
R1327	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1328	ERJ6GEYJ560	M 56 OHM,J,1/10W	
R1329	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	
R1330	ERJ3GEYJ471	M 470 OHM,J,1/16W	
R1331	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1332	ERJ6GEYJ560	M 56 OHM,J,1/10W	

Ref. No.	Part No.	Part Name & Description	Remarks
R1333	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	
R1334	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1335	ERJ6GEYJ560	M 56 OHM,J,1/10W	
R1343	EXB38V220J	RESISTOR ARRAY	
R1344	EXB38V220J	RESISTOR ARRAY	
R1345	EXB38V220J	RESISTOR ARRAY	
R1346	ERJ3GEYJ331	M 330 OHM,J,1/16W	
R1348	EXB38V220J	RESISTOR ARRAY	
R1352	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1353	ERJ6ENF2202	M 2.2KOHM, 1/10W	
R1354	ERJ3GEYJ471	M 470 OHM,J,1/16W	
R1355	ERJ6ENF2202	M 2.2KOHM, 1/10W	
R1356	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1358	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1359	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R1360	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R1361	EXB38V102J	RESISTOR ARRAY	
R1362	EXB38V220J	RESISTOR ARRAY	
R1363	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1372	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1373	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1375	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R1381	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1384	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1385	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1388	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	
R1396	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1397	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1399	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1400	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R1401	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R1402	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1406	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R1407	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1408	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1409	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1410	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1411	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1412	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1413	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1414	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1415	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1416	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1417	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1418	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1419	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1420	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1421	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1422	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1423	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1424	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1425	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1426	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1427	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1428	ERJ6GEYG332	M 3.3KOHM,J,1/10W	
R1429	ERJ6GEYG332	M 3.3KOHM,J,1/10W	
R1430	ERJ6GEYG332	M 3.3KOHM,J,1/10W	

Ref. No.	Part No.	Part Name & Description	Remarks
R1431	ERJ6GEYG332	M 3.3KOHM,J,1/10W	
R1432	ERJ6GEYG332	M 3.3KOHM,J,1/10W	
R1433	ERJ6GEYG332	M 3.3KOHM,J,1/10W	
R1434	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1435	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1436	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1437	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1438	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1439	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1440	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1441	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1442	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1443	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1444	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1445	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1446	ERJ6GEYJ3R3	M 3.3OHM,J,1/10W	
R1447	ERJ6GEYJ3R3	M 3.3OHM,J,1/10W	
R1448	ERJ6GEYJ3R3	M 3.3OHM,J,1/10W	
R1449	ERJ6GEYJ3R3	M 3.3OHM,J,1/10W	
R1450	ERJ6GEYJ3R3	M 3.3OHM,J,1/10W	
R1451	ERJ6GEYJ3R3	M 3.3OHM,J,1/10W	
R1452	ERJ6GEYJ3R3	M 3.3OHM,J,1/10W	
R1453	ERJ6GEYJ3R3	M 3.3OHM,J,1/10W	
R1454	ERJ6GEYJ3R3	M 3.3OHM,J,1/10W	
R1455	ERJ6GEYJ3R3	M 3.3OHM,J,1/10W	
R1456	ERJ6GEYJ3R3	M 3.3OHM,J,1/10W	
R1457	ERJ6GEYJ3R3	M 3.3OHM,J,1/10W	
R1458	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1459	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1460	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1461	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1462	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1463	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1464	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1465	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1466	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1467	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1468	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1469	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1470	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1471	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1472	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1473	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1474	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1475	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1476	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1477	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1478	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1479	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1480	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1481	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1482	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1483	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1484	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1485	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1486	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1487	ERJ3GEYJ220	M 22 OHM,J,1/16W	

Ref. No.	Part No.	Part Name & Description	Remarks
R1488	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1489	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1490	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1492	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1493	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1494	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1495	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1496	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1497	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1498	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	
R1500	ERJ3GEYJ222	M 2.2KOHMJ,J1/16W	
R1501	ERJ3GEYJ681	M 680 OHM,J,1/16W	
R1502	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R1504	ERJ3GEYJ332	M 3.3KOHM,J,1/16W	
R1505	ERJ3GEYJ682	M 6.8KOHM,J,1/16W	
R1506	ERJ6ENF1001	M 1KOHM, 1/10W	
R1508	EXB38VR000	RESISTOR ARRAY	
R1510	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1511	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1512	EXB38VR000	RESISTOR ARRAY	
R1513	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R1515	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1516	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1517	EXB38V220J	RESISTOR ARRAY	
R1518	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1519	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1520	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1521	EXB38V220J	RESISTOR ARRAY	
R1522	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1524	EXB38V220J	RESISTOR ARRAY	
R1525	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1526	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1527	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1528	ERJ3GEYJ331	M 330 OHM,J,1/16W	
R1529	EXB38V220J	RESISTOR ARRAY	
R1530	ERJ6ENF1001	M 1KOHM, 1/10W	
R1531	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1532	EXB38V220J	RESISTOR ARRAY	
R1533	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1534	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1537	EXB38V220J	RESISTOR ARRAY	
R1538	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1539	EXB38V220J	RESISTOR ARRAY	
R1541	EXB38V220J	RESISTOR ARRAY	
R1542	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1543	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1544	EXB38V220J	RESISTOR ARRAY	
R1545	EXB38V220J	RESISTOR ARRAY	
R1546	EXB38V220J	RESISTOR ARRAY	
R1547	EXB38V220J	RESISTOR ARRAY	
R1548	EXB38V220J	RESISTOR ARRAY	
R1549	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1550	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1551	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1552	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1554	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1555	ERJ3GEYJ220	M 22 OHM,J,1/16W	

Ref. No.	Part No.	Part Name & Description	Remarks
R1556	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1557	ERJ3GEYJ473	M 47K OHM,J,1/16W	
R1558	ERJ3GEYJ473	M 47K OHM,J,1/16W	
R1559	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1560	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1561	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1571	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1572	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1573	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1574	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R2002	ERJ6ENF5601	M 5.6KOHM, 1/10W	
R2003	ERJ6ENF1501	M 1.5KOHM, 1/10W	
R2004	ERJ6ENF1501	M 1.5KOHM, 1/10W	
R2005	ERJ6ENF2701	M 2.7KOHM, 1/10W	
R2006	ERJ6ENF6801	M 6.8KOHM, 1/10W	
R2007	ERJ6ENF3302	M 33KOHM, 1/10W	
R2008	ERJ6ENF5601	M 5.6KOHM, 1/10W	
R2009	ERJ6ENF1501	M 1.5KOHM, 1/10W	
R2010	ERJ6ENF1501	M 1.5KOHM, 1/10W	
R2011	ERJ6ENF2701	M 2.7KOHM, 1/10W	
R2012	ERJ6ENF6801	M 6.8KOHM, 1/10W	
R2013	ERJ6ENF3302	M 33KOHM, 1/10W	
R2014	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R2015	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R2016	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R2017	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R2019	ERJ3GEYJ331	M 330 OHM,J,1/16W	
R2020	ERJ3GEYJ331	M 330 OHM,J,1/16W	
R2022	ERJ3GEYJ331	M 330 OHM,J,1/16W	
R2023	ERJ3GEYJ331	M 330 OHM,J,1/16W	
R2026	ERJ3GEY0R00	M 0 OHM, 1/16W	
R2028	ERJ3GEYJ100	M 10 OHM,J,1/16W	
R2029	ERJ3GEYJ100	M 10 OHM,J,1/16W	
R3003	ERJ3GEYJ330	M 33 OHM,J,1/16W	
R3004	ERJ6GEYJ470	M 47 OHM,J,1/10W	
R9762	ERJ3GEYJ100	M 10 OHM,J,1/16W	
[CAPACITORS]			
C1001	ECJ1XB1C103K	C 0.01UF, K, 16V	
C1002	EEVHB0J330	E 33UF, 6.3V	
C1003	ECJ2XF1C105Z	C 1UF, Z, 16V	
C1004	ECJ1XB1C103K	C 0.01UF, K, 16V	
C1005	EEVHB0J330	E 33UF, 6.3V	
C1006	ECJ1XB1C103K	C 0.01UF, K, 16V	
C1007	EEVHB0J330	E 33UF, 6.3V	
C1008	ECJ1XB1C103K	C 0.01UF, K, 16V	
C1009	ECJ1XB1C103K	C 0.01UF, K, 16V	
C1010	ECUX1H102JCV	C 1000PF, J, 50V	
C1011	EEVHB0J330	E 33UF, 6.3V	
C1012	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1013	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1014	ECUX1A105ZF	C 1UF, Z, 16V	
C1015	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1016	ECJ1XB1C103K	C 0.01UF, K, 16V	
C1017	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1018	ECUX1C104ZFV	C 0.1UF, Z, 16V	

Ref. No.	Part No.	Part Name & Description	Remarks
C1019	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1020	EEVHB0J330	E 33UF, 6.3V	
C1023	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1025	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1026	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1028	EEVHB1C101	E 100UF, 16V	
C1029	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1030	ECJ2XF1C474Z	C 0.47UF, Z, 16V	
C1031	ECJ2XF1C474Z	C 0.47UF, Z, 16V	
C1032	ECJ2XF1C225Z	C 2.2UF, Z, 16V	
C1033	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1034	ECJ1XB1C103K	C 0.01UF, K, 16V	
C1035	ECUX1H080CCV	C 8PF, C, 50V	
C1036	ECJ1XB1C103K	C 0.01UF, K, 16V	
C1037	ECUX1C223KBV	C 0.022UF, K, 16V	
C1039	ECJ3XB0J106M	C 10UF, M,6.3V	
C1040	ECJ3XB0J106M	C 10UF, M,6.3V	
C1041	ECJ3XB0J106M	C 10UF, M,6.3V	
C1043	ECJ1XB1C103K	C 0.01UF, K, 16V	
C1044	ECJ1XB1C103K	C 0.01UF, K, 16V	
C1045	ECJ1XB1C103K	C 0.01UF, K, 16V	
C1046	ECJ1XB1C103K	C 0.01UF, K, 16V	
C1047	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1048	ECUX1H120JCV	C 12PF, 50V	
C1049	ECUX1H120JCV	C 12PF, 50V	
C1050	EEVHB0J330	E 33UF, 6.3V	
C1051	ECUX1H220JCV	C 22PF, 50V	ECJ1XC1H220J
C1052	ECUX1H220JCV	C 22PF, 50V	ECJ1XC1H220J
C1053	ECUX1A105ZF	C 1UF, Z, 16V	
C1055	ECUX1A105ZF	C 1UF, Z, 16V	
C1057	EEVHB1C470	E 47UF, 16V	
C1058	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1059	ECJ1XB1C103K	C 0.01UF, K, 16V	
C1060	ECJ1XC1H681J	C 680PF, J, 50V	
C1062	ECJ1XB1C103K	C 0.01UF, K, 16V	
C1063	ECJ1XB1C103K	C 0.01UF, K, 16V	
C1064	ECUX1A105ZF	C 1UF, Z, 16V	
C1065	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1066	ECJ3XB0J106M	C 10UF, M,6.3V	
C1067	EEVHB0J101	E 100UF, 6.3V	EEVHB0J101P
C1068	ECJ3XF1C475Z	C 4.7UF, Z, 16V	
C1069	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1070	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1071	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1072	ECUX1A105ZF	C 1UF, Z, 16V	
C1073	ECJ2XF1C225Z	C 2.2UF, Z, 16V	
C1074	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1076	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1078	EEVHB1C470	E 47UF, 16V	
C1079	ECJ2XF1C225Z	C 2.2UF, Z, 16V	
C1080	EEVHP1C100R	E 10UF, 16V	
C1081	EEVHP1C100R	E 10UF, 16V	
C1082	EEVHB0J101	E 100UF, 6.3V	EEVHB0J101P
C1083	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1085	EEVHB0J101	E 100UF, 6.3V	EEVHB0J101P
C1086	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1087	ECUX1C104ZFV	C 0.1UF, Z, 16V	

Ref. No.	Part No.	Part Name & Description	Remarks
C1088	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1089	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1090	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1091	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1092	EEVHB0J101	E 100UF, 6.3V	EEVHB0J101P
C1093	EEVHB1C100	E 10UF, 16V	
C1094	EEVHB0J101	E 100UF, 6.3V	EEVHB0J101P
C1095	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1096	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1097	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1098	ECUX1H473ZFV	C 0.047UF, Z, 50V	ECJ1XF1H473Z
C1099	ECUX1H473ZFV	C 0.047UF, Z, 50V	ECJ1XF1H473Z
C1100	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1101	ECUX1H102KBV	C 1000PF, K, 50V	
C1102	ECUX1H473ZFV	C 0.047UF, Z, 50V	ECJ1XF1H473Z
C1103	ECUX1H102KBV	C 1000PF, K, 50V	
C1104	ECUX1H473ZFV	C 0.047UF, Z, 50V	ECJ1XF1H473Z
C1105	ECUX1H473ZFV	C 0.047UF, Z, 50V	ECJ1XF1H473Z
C1106	ECUX1H473ZFV	C 0.047UF, Z, 50V	ECJ1XF1H473Z
C1107	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1108	ECUX1H151JCV	C 150PF, J, 50V	ECJ1XC1H151J
C1109	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1112	ECJ2XF1C105Z	C 1UF, Z, 16V	
C1114	ECJ1XB1C103K	C 0.01UF, K, 16V	
C1115	ECJ2XB1H472K	C 2700PF, K, 50V	
C1116	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1117	ECJ2XF1C225Z	C 2.2UF, Z, 16V	
C1118	ECJ3XF1C475Z	C 4.7UF, Z, 16V	
C1119	ECJ3XF1C475Z	C 4.7UF, Z, 16V	
C1120	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1121	ECJ3XF1C475Z	C 4.7UF, Z, 16V	
C1122	ECUX1H392KBV	C 3900PF, K, 50V	
C1123	ECUX1C393KBV	C 0.039UF, K, 50V	
C1124	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1125	ECJ2XF1C225Z	C 2.2UF, Z, 16V	
C1126	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1127	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1128	ECJ2XC1H391J	C 390PF, J, 50V	
C1129	ECUX1A105ZF	C 1UF, Z, 16V	
C1130	EEVHB1C100	E 10UF, 16V	
C1131	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1132	ECUX1H181JCV	C 180PF, 50V	ECJ1XC1H181J
C1133	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1134	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1135	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1136	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1137	ECJ1XB1C103K	C 0.01UF, K, 16V	
C1138	ECJ3XF1C475Z	C 4.7UF, Z, 16V	
C1139	EEVHB0J330	E 33UF, 6.3V	
C1140	EEVHB0J470	E 47UF, 6.3V	
C1141	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1142	EEVHB0J470	E 47UF, 6.3V	
C1143	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1144	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1145	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1146	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1147	ECUX1C104ZFV	C 0.1UF, Z, 16V	

Ref. No.	Part No.	Part Name & Description	Remarks
C1148	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1149	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1150	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1151	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1152	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1153	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1154	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1155	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1156	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1157	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1158	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1159	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1160	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1161	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1162	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1163	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1164	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1165	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1166	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1167	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1168	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1169	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1170	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1171	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1172	ECUX1A105ZF	C 1UF, Z, 16V	
C1177	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1178	ECUX1H473ZFV	C 0.047UF, Z, 50V	ECJ1XF1H473Z
C1179	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1180	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1181	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1182	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1183	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1184	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1185	ECJ1XC1H101J	C 100PF, J, 50V	
C1186	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1187	ECUM1H471JCN	C 470PF, 50V	ECJ2XC1H471J
C1188	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1190	ECUX1H220JCV	C 22PF, 50V	ECJ1XC1H220J
C1191	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1192	ECUX1H220JCV	C 22PF, 50V	ECJ1XC1H220J
C1194	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1195	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1196	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1197	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1198	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1199	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1200	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1201	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1202	EEVHB0J330	E 33UF, 6.3V	
C1203	ECJ2XF1C225Z	C 2.2UF, Z, 16V	
C1204	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1205	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1206	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1207	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1208	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1209	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1210	ECUX1C104ZFV	C 0.1UF, Z, 16V	

Ref. No.	Part No.	Part Name & Description	Remarks
C1212	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1213	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1214	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1215	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1216	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1217	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1218	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1219	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1220	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1221	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1225	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1226	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1238	EEVHB1E4R7	E 4.7UF, 25V	
C1240	EEVHB1A221	E 220UF, 10V	
C1242	EEVHB0J101	E 100UF, 6.3V	EEVHB0J101P
C1243	EEVHB0J470	E 47UF, 6.3V	
C1246	EEVHB1E4R7	E 4.7UF, 25V	
C1247	EEVHB0J101	E 100UF, 6.3V	EEVHB0J101P
C1248	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1249	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1250	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1251	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1252	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1253	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1254	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1255	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1256	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1257	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1258	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1259	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1260	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1261	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1262	ECJ2XF1C105Z	C 1UF, Z, 16V	
C1263	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1264	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1265	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1266	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1267	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1268	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1269	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1270	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1271	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1272	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1273	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1274	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1275	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1276	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1277	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1278	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1279	EEVHB1E4R7	E 4.7UF, 25V	
C1280	EEVHB1E4R7	E 4.7UF, 25V	
C1281	EEVHB1E4R7	E 4.7UF, 25V	
C1282	ECUX1A105ZF	C 1UF, Z, 16V	
C1297	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1298	EEVHB1E330	E 33UF, 25V	
C1299	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1300	ECJ1XF1E104Z	C 0.1UF, Z, 25V	

Ref. No.	Part No.	Part Name & Description	Remarks
C1301	EEVHB1E330	E 33UF, 25V	
C1302	EEVHB1E330	E 33UF, 25V	
C1303	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1304	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1305	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1306	ECJ2XF1C105Z	C 1UF, Z, 16V	
C1307	ECJ2XF1C105Z	C 1UF, Z, 16V	
C1308	ECJ2XF1C105Z	C 1UF, Z, 16V	
C1309	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1310	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1312	EEVHB0J330	E 33UF, 6.3V	
C1332	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1333	EEVHB0G101	E 100UF, 4V	
C1337	EEVHB0J470	E 47UF, 6.3V	
C1338	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1339	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1341	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1342	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1343	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1345	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1346	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1347	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1350	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1351	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1353	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1354	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1355	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1356	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1359	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1360	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1361	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1362	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1364	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1365	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1366	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1367	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1368	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1438	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1439	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1440	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1441	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1442	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1443	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C1444	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1445	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1446	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1447	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1448	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1449	ECJ1XF1E104Z	C 0.1UF, Z, 25V	
C1450	EEVHB1E4R7	E 4.7UF, 25V	
C1701	ECJ2XF1C225Z	C 2.2UF, Z, 16V	
C1702	ECJ3XF1C475Z	C 4.7UF, Z, 16V	
C1703	ECJ3XF1C475Z	C 4.7UF, Z, 16V	
C1704	EEVHB0J101	E 100UF, 6.3V	EEVHB0J101P
C1705	EEVHB0J101	E 100UF, 6.3V	EEVHB0J101P
C1706	EEVHB0J101	E 100UF, 6.3V	EEVHB0J101P
C1710	EEVHB0J101	E 100UF, 6.3V	EEVHB0J101P

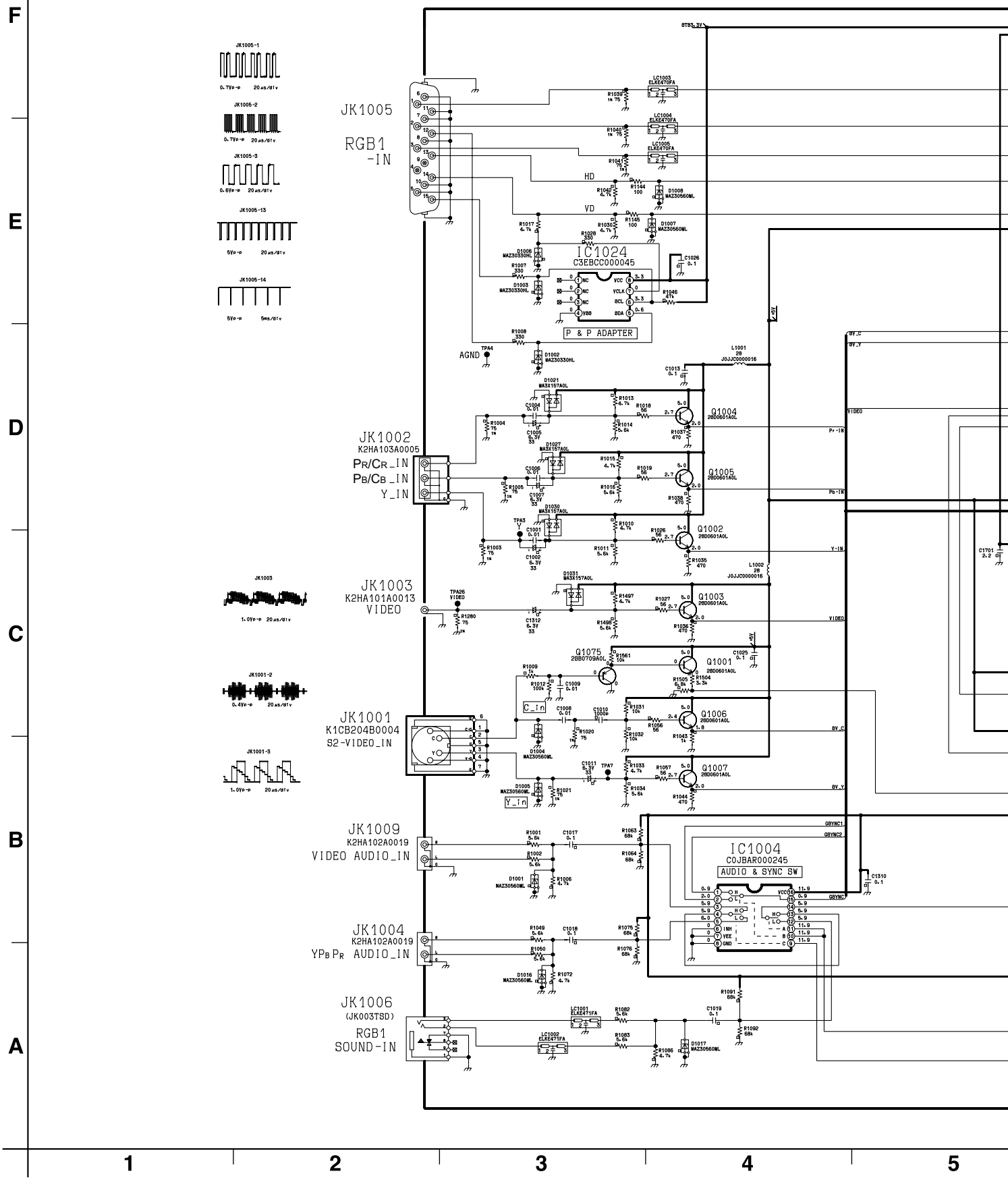
Ref. No.	Part No.	Part Name & Description	Remarks
C1712	EEFUD0J101	CAPACITOR	
C1715	ECKF1H221KB	C 220PF, K, 50V	
C2001	EEVHB0J470	E 47UF, 6.3V	
C2002	ECUX1C104ZFV	C 0.1UF, Z, 16V	
C3001	EEVHB0J470	E 47UF, 6.3V	
C3002	ECUX1C104ZFV	C 0.1UF, Z, 16V	
[OTHERS]			
A1	K1MN36B00014	36P CONNECTOR	
A2	K1MN36B00014	36P CONNECTOR	
A3	K1MN36B00014	36P CONNECTOR	
A4	K1KB05B00019	5P CONNECTOR	
A6	TJS3A8770	12P CONNECTOR	K1KA12B00079
A8	K1KA13B00041	13P CONNECTOR	
A15	TJS6A8780	3P CONNECTOR	K1KA03B00006
A16	TJS6A8780	3P CONNECTOR	K1KA03B00006
A17	TJS6A8780	3P CONNECTOR	K1KA03B00006
A18	TJS6A8780	3P CONNECTOR	K1KA03B00006
A19	VJP3172D004	4P CONNECTOR	K1KA04B00007
R1	TJSF43703	3P CONNECTOR	K1KA03B00098
S1	K1KA13A00066	13P CONNECTOR	
S2	K1KA02A00101	2P CONNECTOR	
S3	K1KA02A00101	2P CONNECTOR	
S4	TJSF43803	3P CONNECTOR	K1KA03A00153
JK1001	TJSF42904	CONNECTOR	K1CB204B0004
JK1002	K2HA103A0005	Y/PB/PR TERMINAL	
JK1003	K2HA101A0013	TERMINAL	
JK1004	K2HA102A0019	AUDIO LR TERMINAL	
JK1005	K1FB115B0066	D-SUB 15P	
JK1006	K2HC106B0007	TERMINAL	
JK1009	K2HA102A0019	AUDIO LR TERMINAL	
JS1012	ERJ6GEY0R00	M 0 OHM, 1/10W	
JS1013	ERJ6GEY0R00	M 0 OHM, 1/10W	
JS1014	ERJ6GEY0R00	M 0 OHM, 1/10W	
JS1015	ERJ6GEY0R00	M 0 OHM, 1/10W	
JS1016	ERJ3GEY0R00	M 0 OHM, 1/16W	
JS1017	ERJ3GEY0R00	M 0 OHM, 1/16W	
JS1018	ERJ6GEY0R00	M 0 OHM, 1/10W	
JS1019	ERJ6GEY0R00	M 0 OHM, 1/10W	
F101	K5Y502B00002	FUSE	⚠
F102	K5Y502B00002	FUSE	⚠
RM3001	B3RAD0000036	REMOTE CONTROL RECEIVER	
S2004	EVQPLHA15	SWITCH	
S2005	EVQPLHA15	SWITCH	
S2006	EVQPLHA15	SWITCH	
S2007	EVQPLHA15	SWITCH	
S2008	EVQPLHA15	SWITCH	
S2009	EVQPLHA15	SWITCH	
X1001	H1A6805B0001	CRYSTAL	
X1002	TSSA116	CRYSTAL	
X1003	H0J737400005	CRYSTAL	
Z9601	G4F3E0000001	IGNITER	⚠
RTL	TNPA2343	CIRCUIT BOARD (S)	
RTL	TNPA2361	CIRCUIT BOARD (P)	
RTL	TNPA2388	CIRCUIT BOARD (R)	

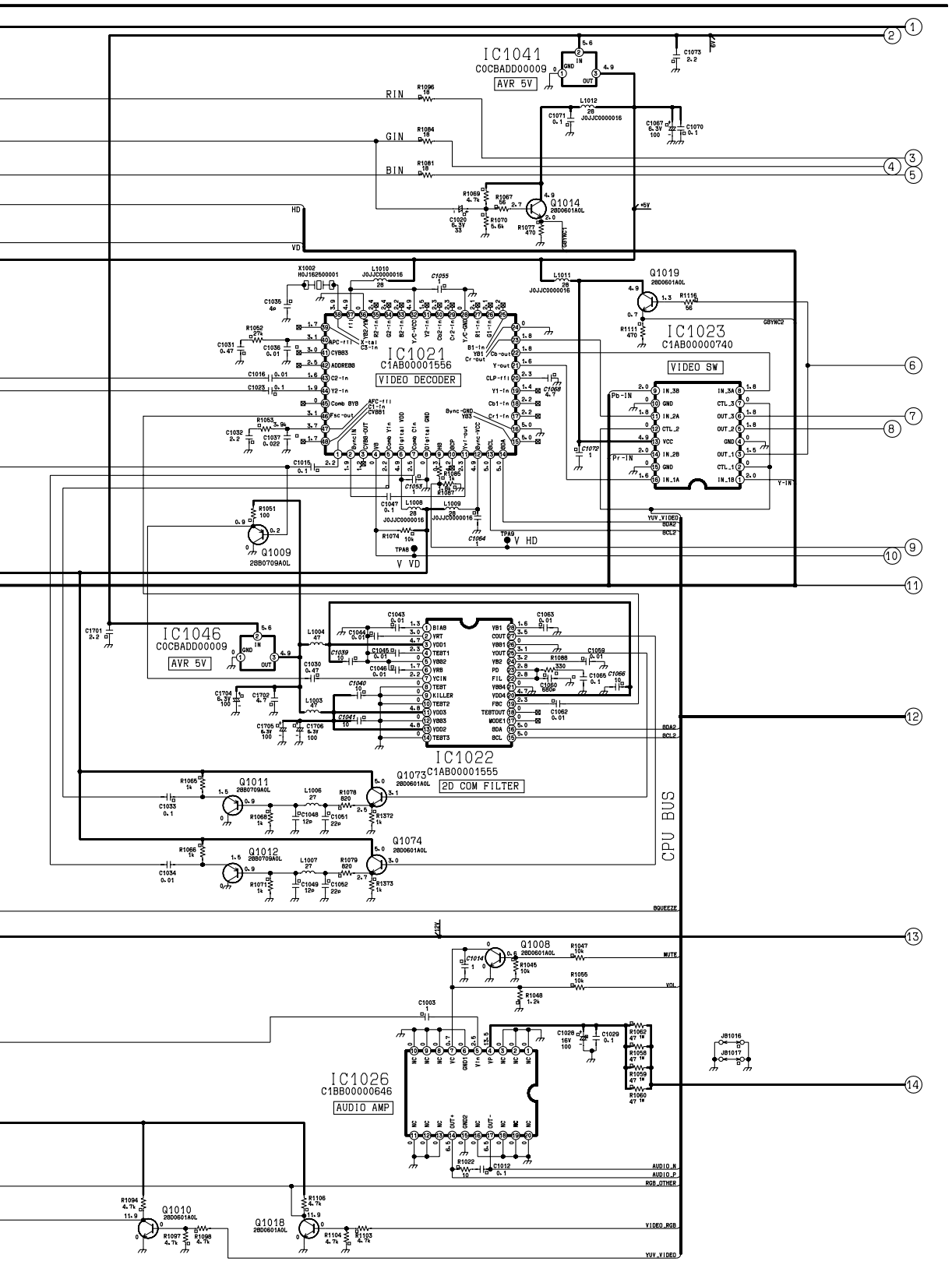
Ref. No.	Part No.	Part Name & Description	Remarks
RTL	TXANP01VJJ3	CIRCUIT BOARD (A)	
RTL	TXANP03VJJ3	CIRCUIT BOARD (K)	
RTL	TXANPBQVJJ3	CIRCUIT BOARD (BQ)ASSY	

15. Schematic Diagram for printing with A4 size

10.1. A-P.C.Board (1/4)

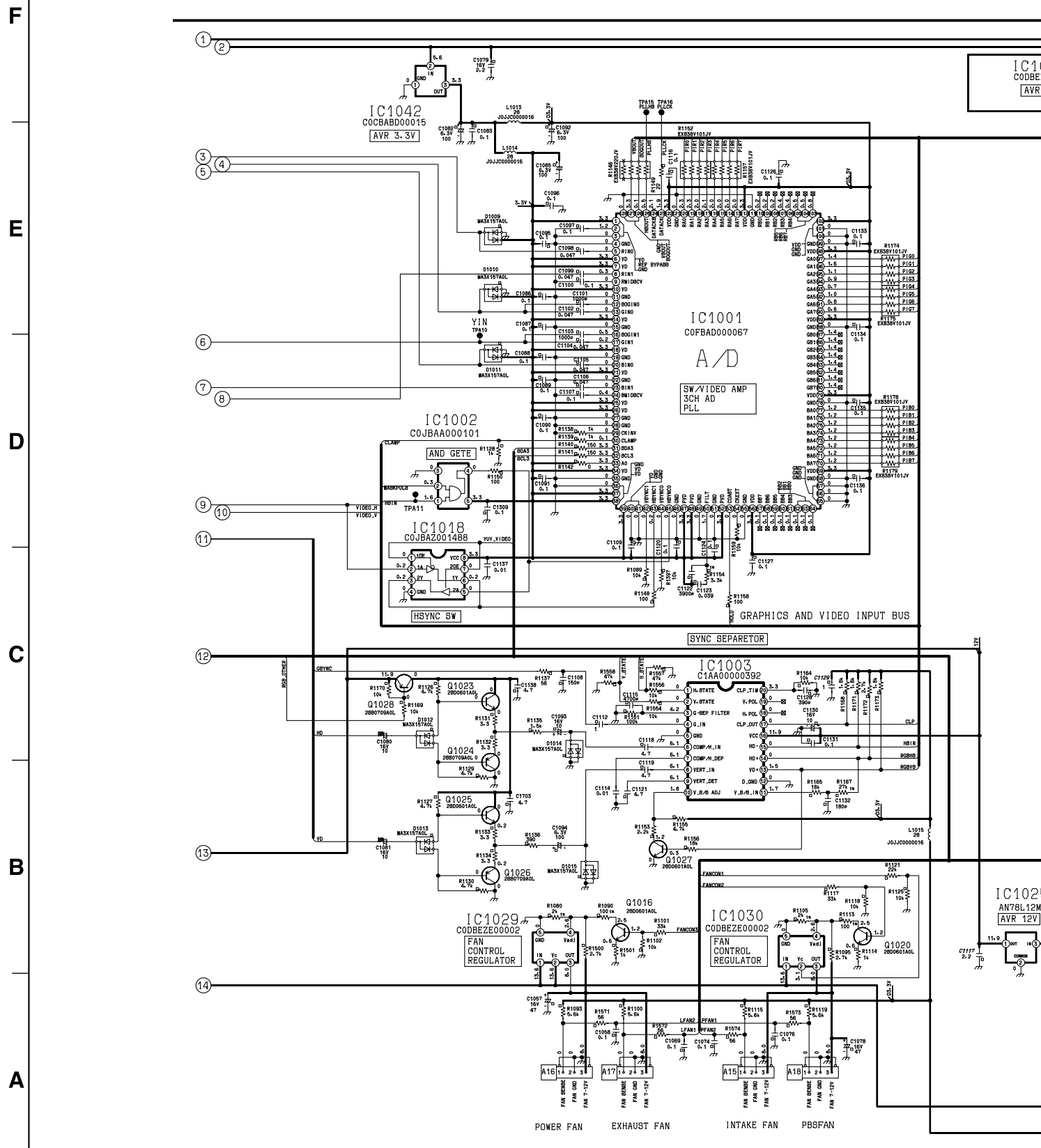
A-P.C.Board TXANP01VJJ3 (1/4)

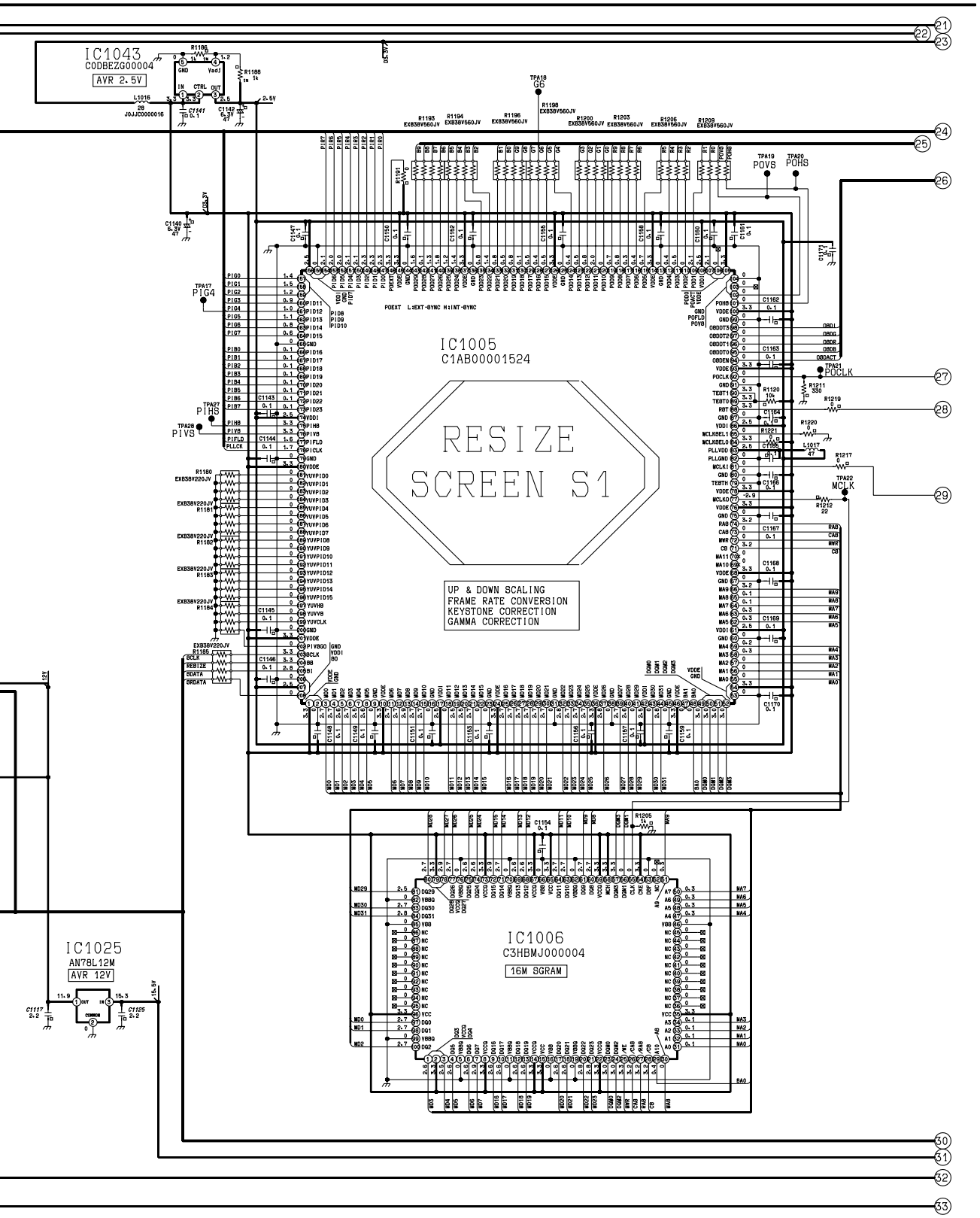



IC1041
C0CBADD00009
AVR 5V
RIN
GIN
BIN
HD
VD
IC1021
C1AB00001556
VIDEO DECODER
IC1023
C1AB00000740
VIDEO SW
IC1046
C0CBADD00009
AVR 5V
IC1022
C1AB00001555
2D COM FILTER
Q1073
Q1011
Q1012
Q1074
Q1014
Q1019
Q1009
Q1008
Q1010
Q1018
IC1026
C1BB00000646
AUDIO AMP
V HD
V VD
CPU BUS
MUTE
VOL
AUDIO_N
AUDIO_P
RGB_OTHER
VIDEO_RGB
YUV_VIDEO
SQUEEZE
Pb-IN
Pr-IN
Y-IN

10.2. A-P.C.Board (2/4)

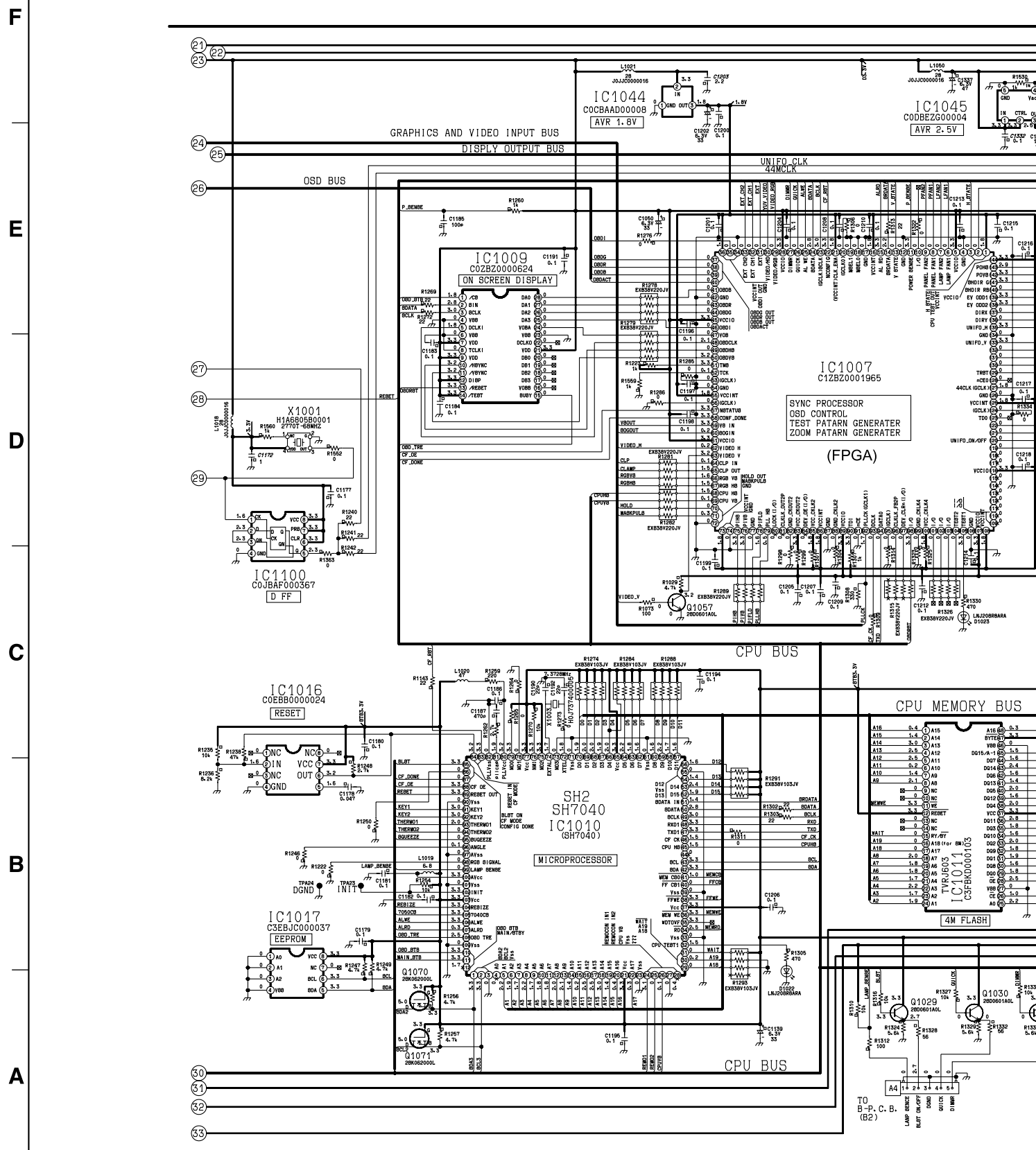
A-P.C.Board TXANP01VJJ3 (2/4)

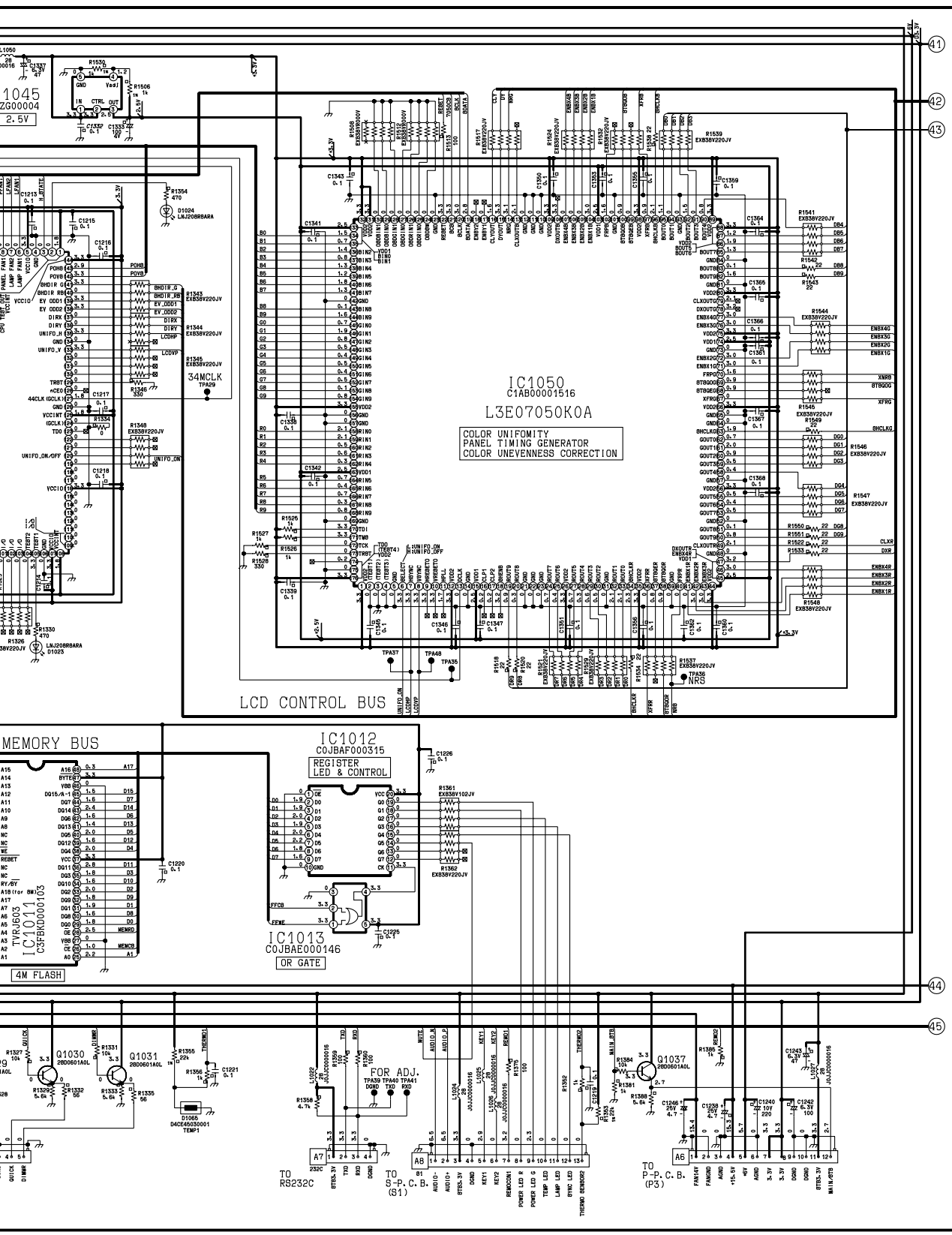



IC1043
C0DBEZG00004
AVR 2.5V
IC1005
C1AB00001524
RESIZE
SCREEN S1
UP & DOWN SCALING
FRAME RATE CONVERSION
KEYSTONE CORRECTION
GAMMA CORRECTION
IC1006
C3HBMJ000004
16M SGRAM
IC1025
AN78L12M
AVR 12V
POVS
POHS
PCLK
MCLK
PIG4
PIHS
PIVS

10.3. A-P.C.Board (3/4)

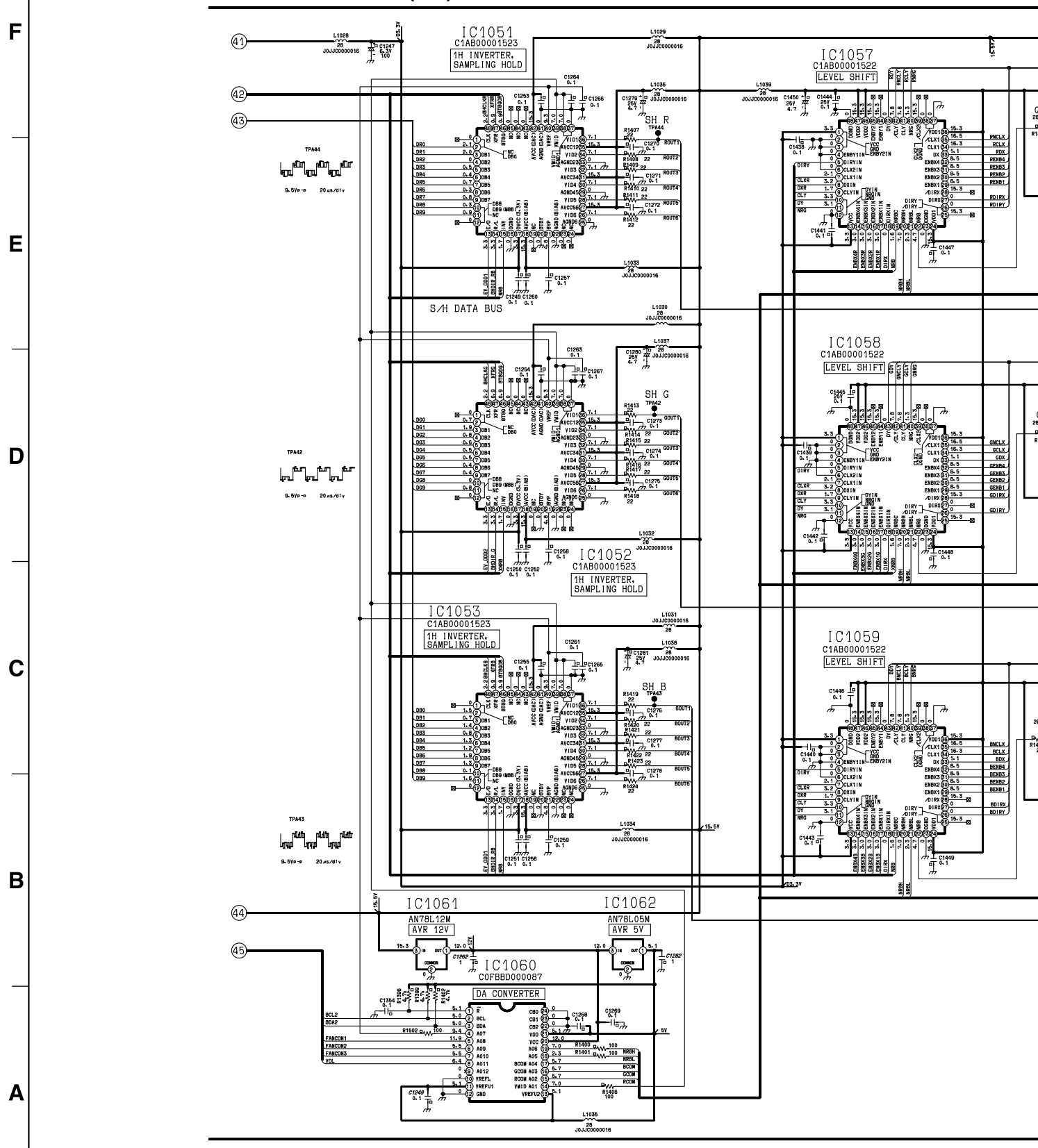
A-P.C.Board TXANP01VJJ3 (3/4)

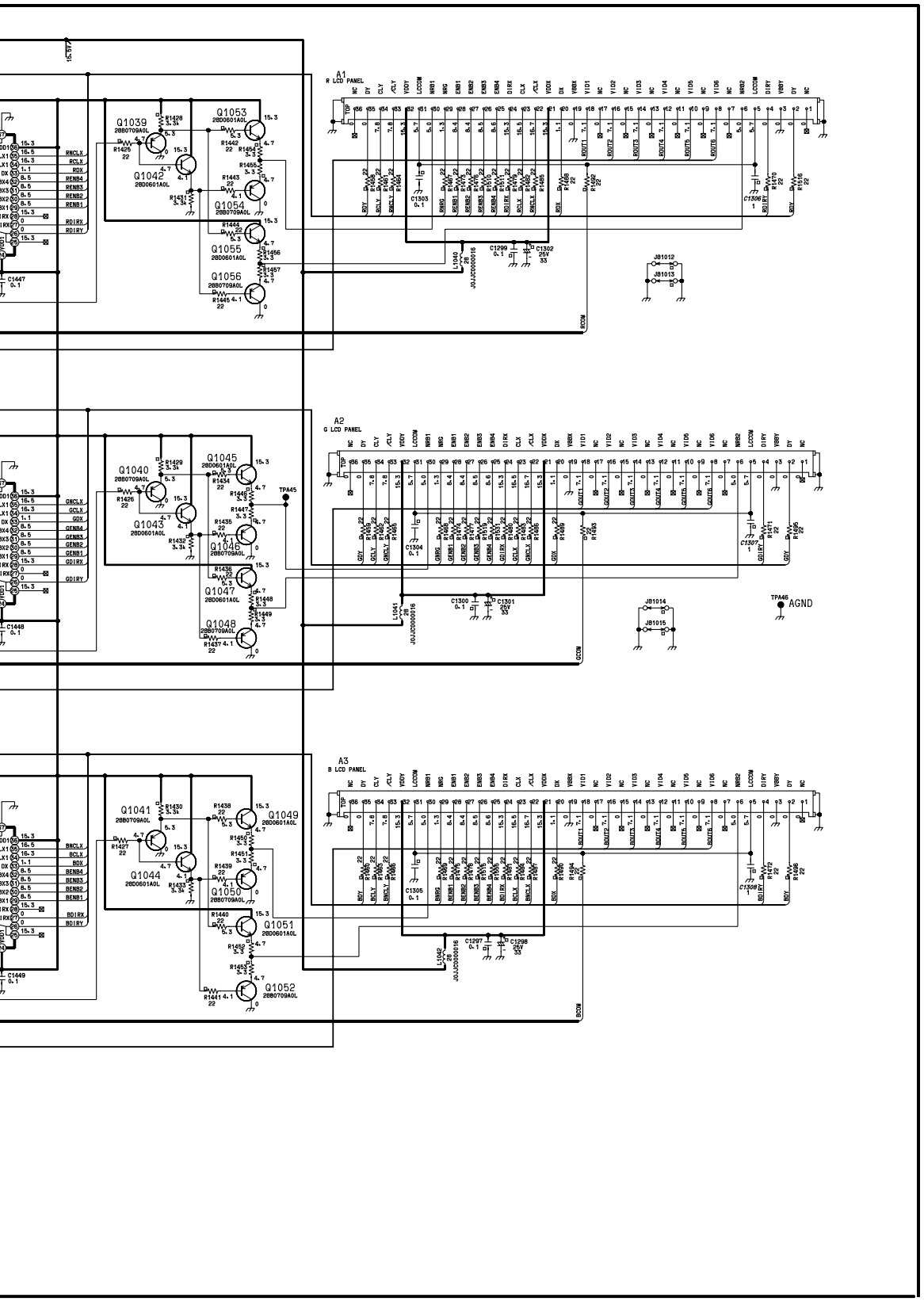



IC1050
C1AB00001516
L3E07050K0A
COLOR UNIFOMITY
PANEL TIMING GENERATOR
COLOR UNEVENNESS CORRECTION
LCD CONTROL BUS
MEMORY BUS
IC1012
C0JBAF000315
REGISTER
LED & CONTROL
IC1013
C0JBAE000146
OR GATE
IC1011
C5FBKD000103
4M FLASH
IC1045
ZG00004
2.5V
34MCLK
TPA29
FOR ADJ.
TO
RS232C
TO
S-P.C.B.
(S1)
TO
P-P.C.B.
(P3)
Q1030
2SD0601A0L
Q1031
2SD0601A0L
Q1037
2SD0601A0L

10.4. A-P.C.Board (4/4)

A-P.C.Board TXANP01VJJ3 (4/4)

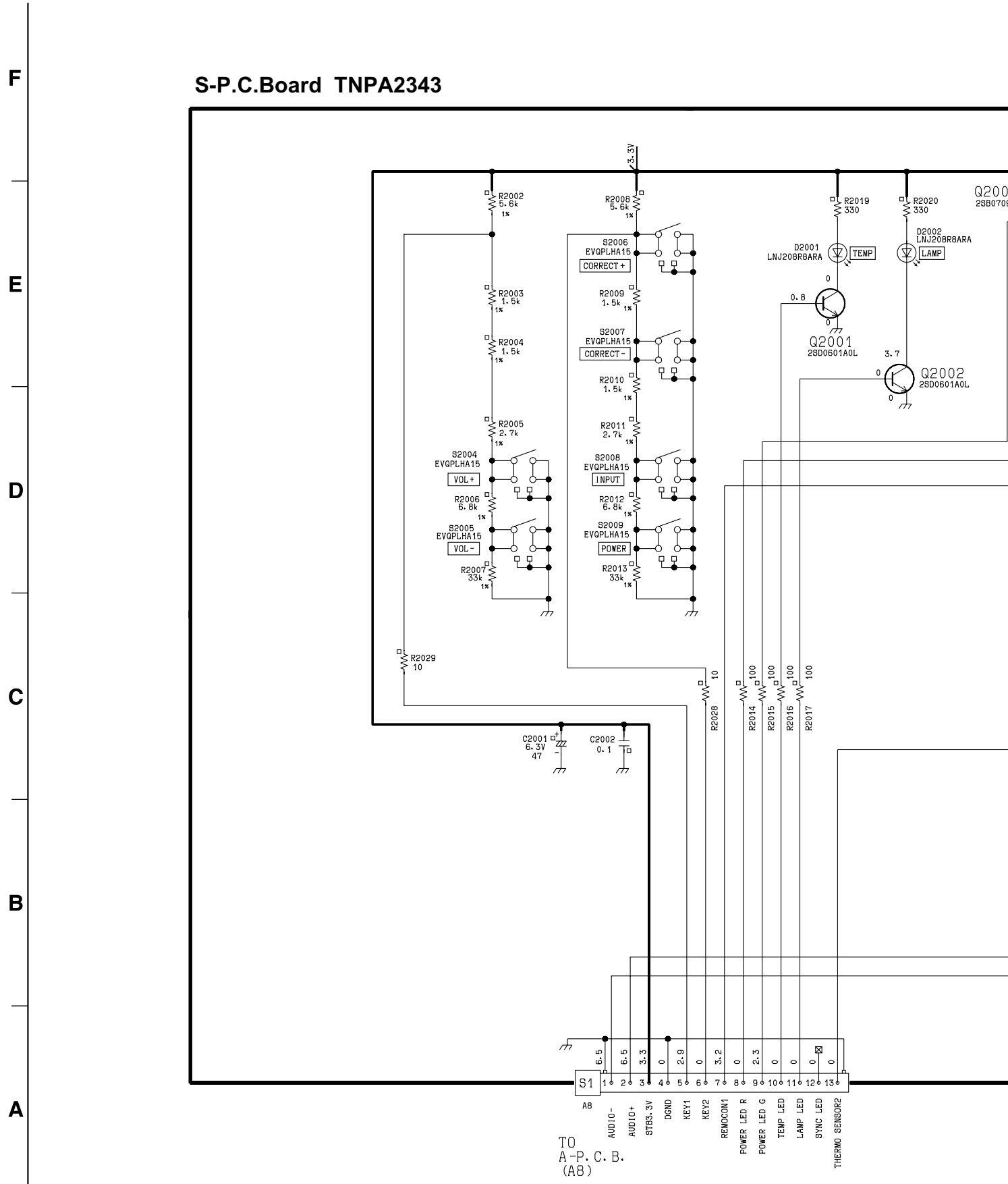


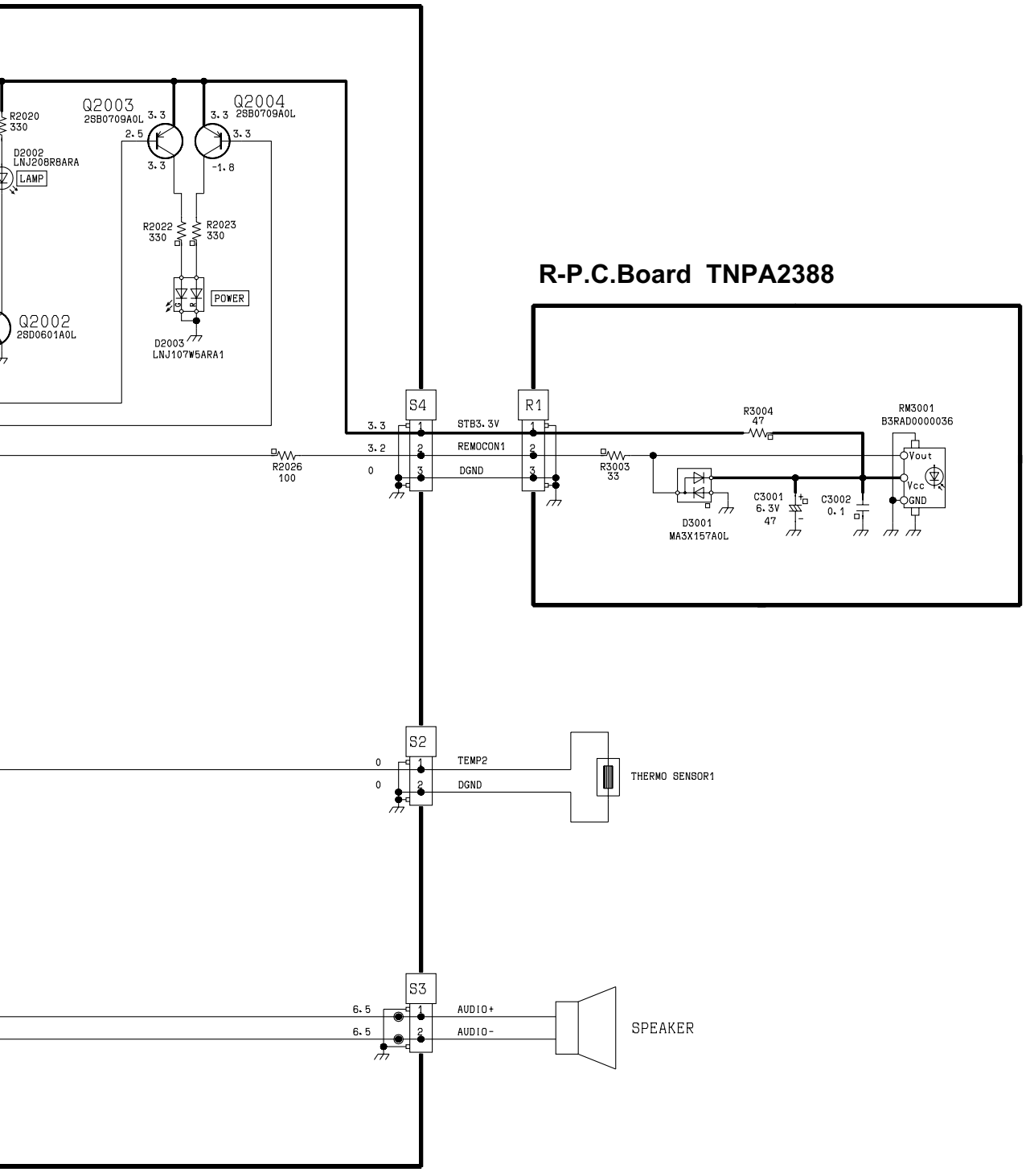

A1
R LCD PANEL
A2
G LCD PANEL
A3
B LCD PANEL
AGND
Q1039
Q1040
Q1041
Q1042
Q1043
Q1044
Q1045
Q1046
Q1047
Q1048
Q1049
Q1050
Q1051
Q1052
Q1053
Q1054
Q1055
Q1056

5 6 7 8 9

10.5. S-P.C.Board, R-P.C.Board

S-P.C.Board TNPA2343



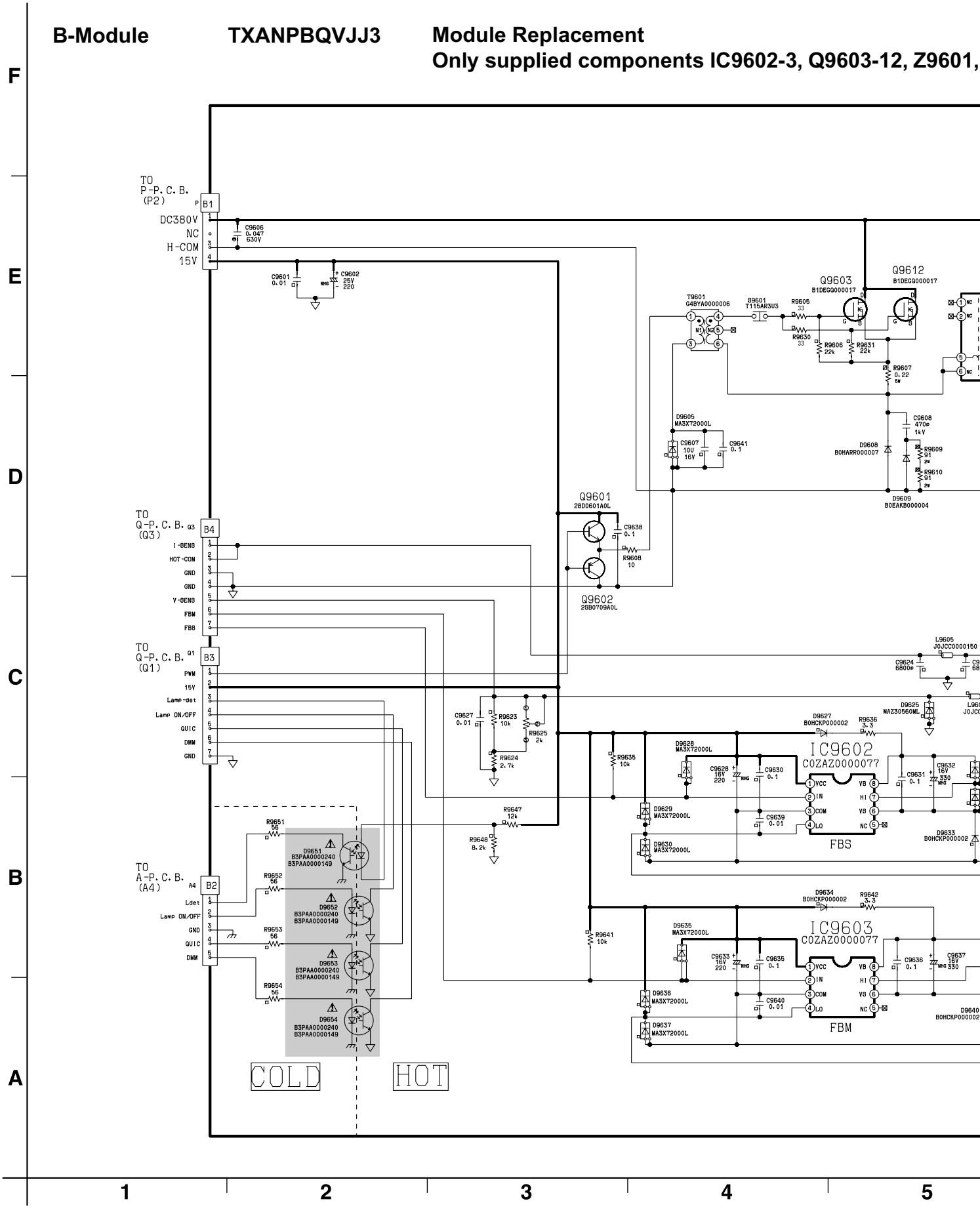

R-P.C.Board TNPA2388
Q2003
2SB0709A0L
Q2004
2SB0709A0L
R2020
330
D2002
LNJ208R8ARA
LAMP
Q2002
2SD0601A0L
R2022
330
R2023
330
POWER
D2003
LNJ107W5ARA1
S4
R1
STB3.3V
REMOCON1
DGND
R2026
100
R3003
33
R3004
47
D3001
MA3X157A0L
C3001
6.3V
47
C3002
0.1
RM3001
B3RAD0000036
Vout
Vcc
GND
S2
TEMP2
DGND
THERMO SENSOR1
S3
AUDIO+
AUDIO-
SPEAKER

5 6 7 8 9

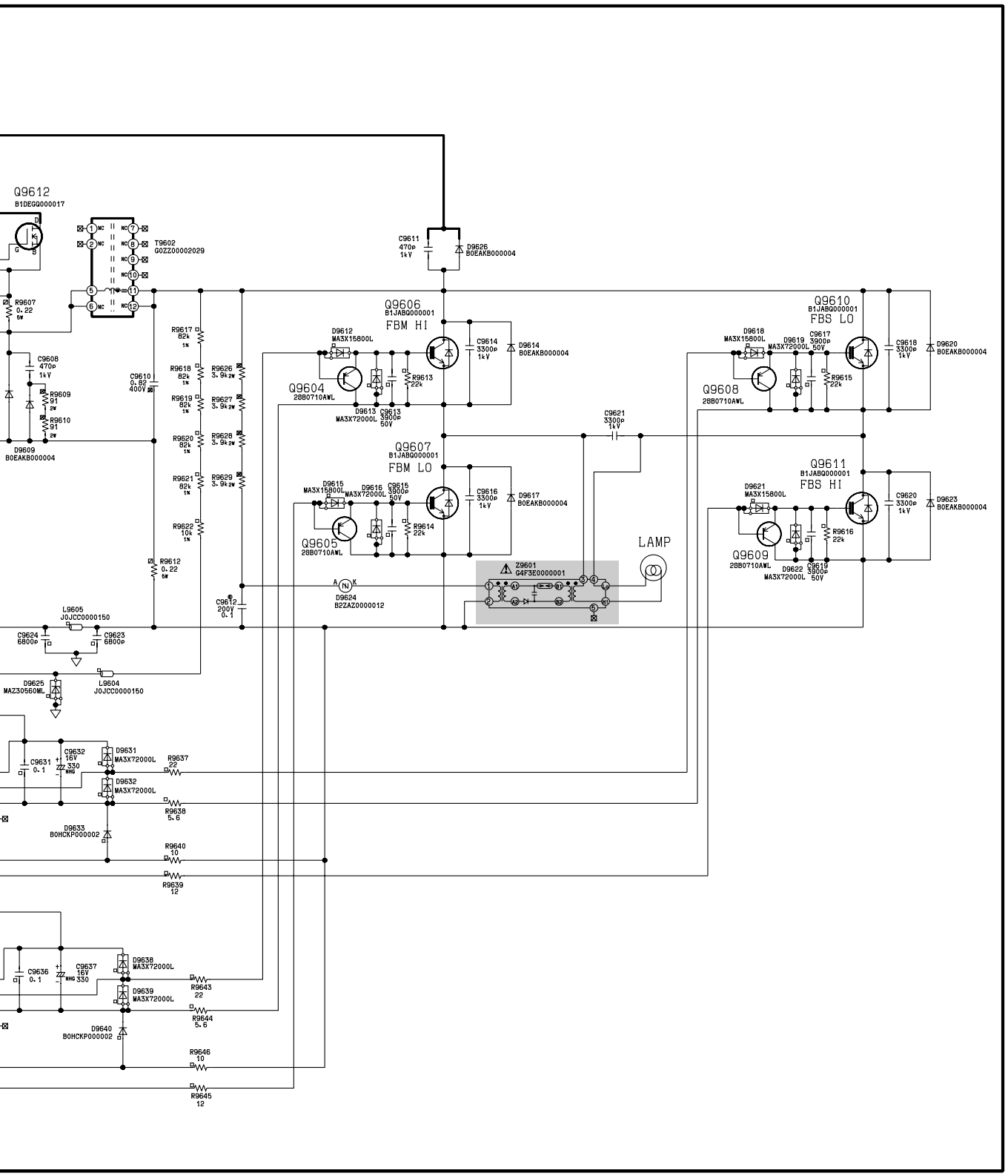
10.6. B-Module

B-Module **TXANPBQVJJ3** **Module Replacement**

Only supplied components IC9602-3, Q9603-12, Z9601,

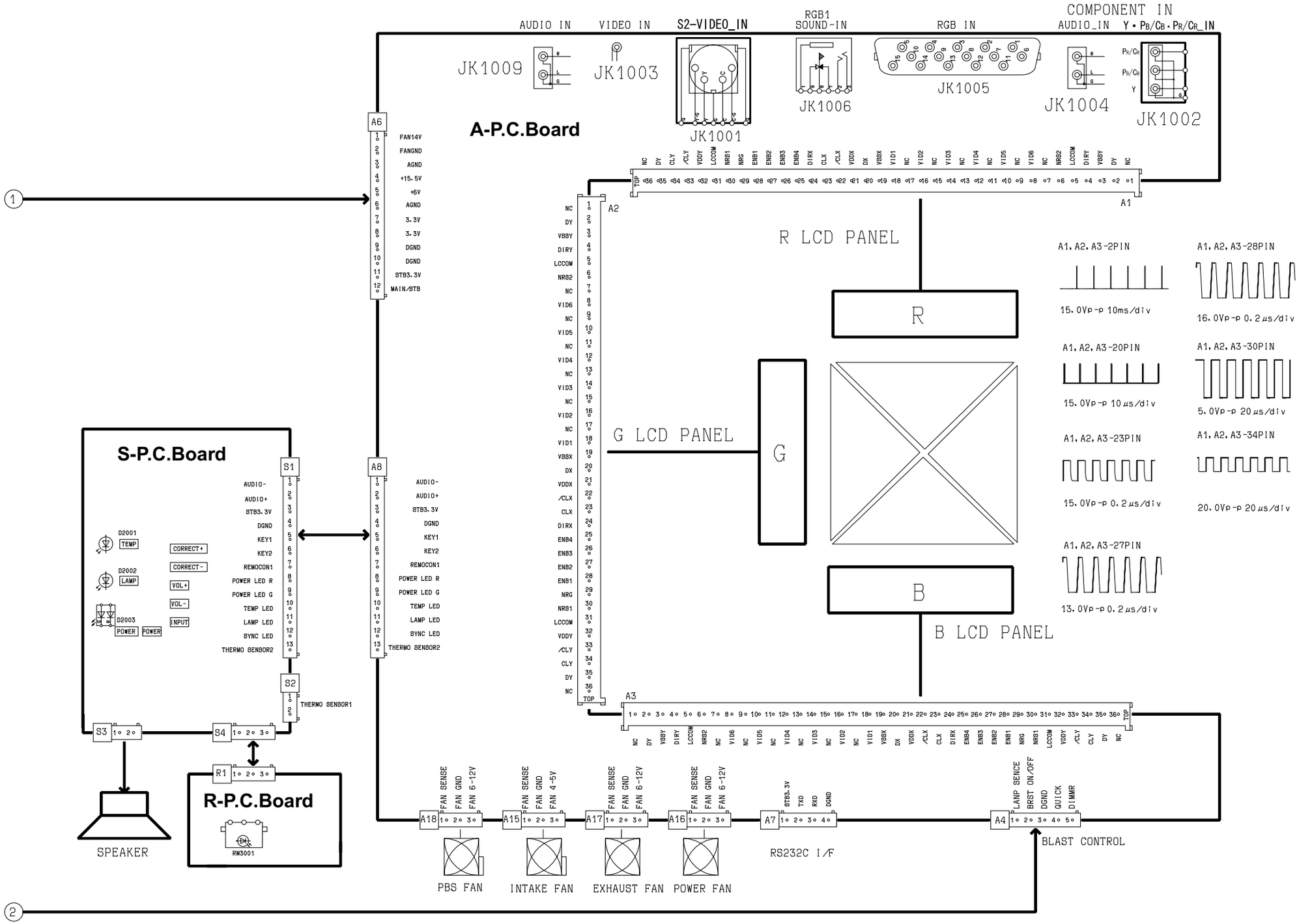


12, Z9601, D9612-13, D9615-16, D9618-19,D9621-22

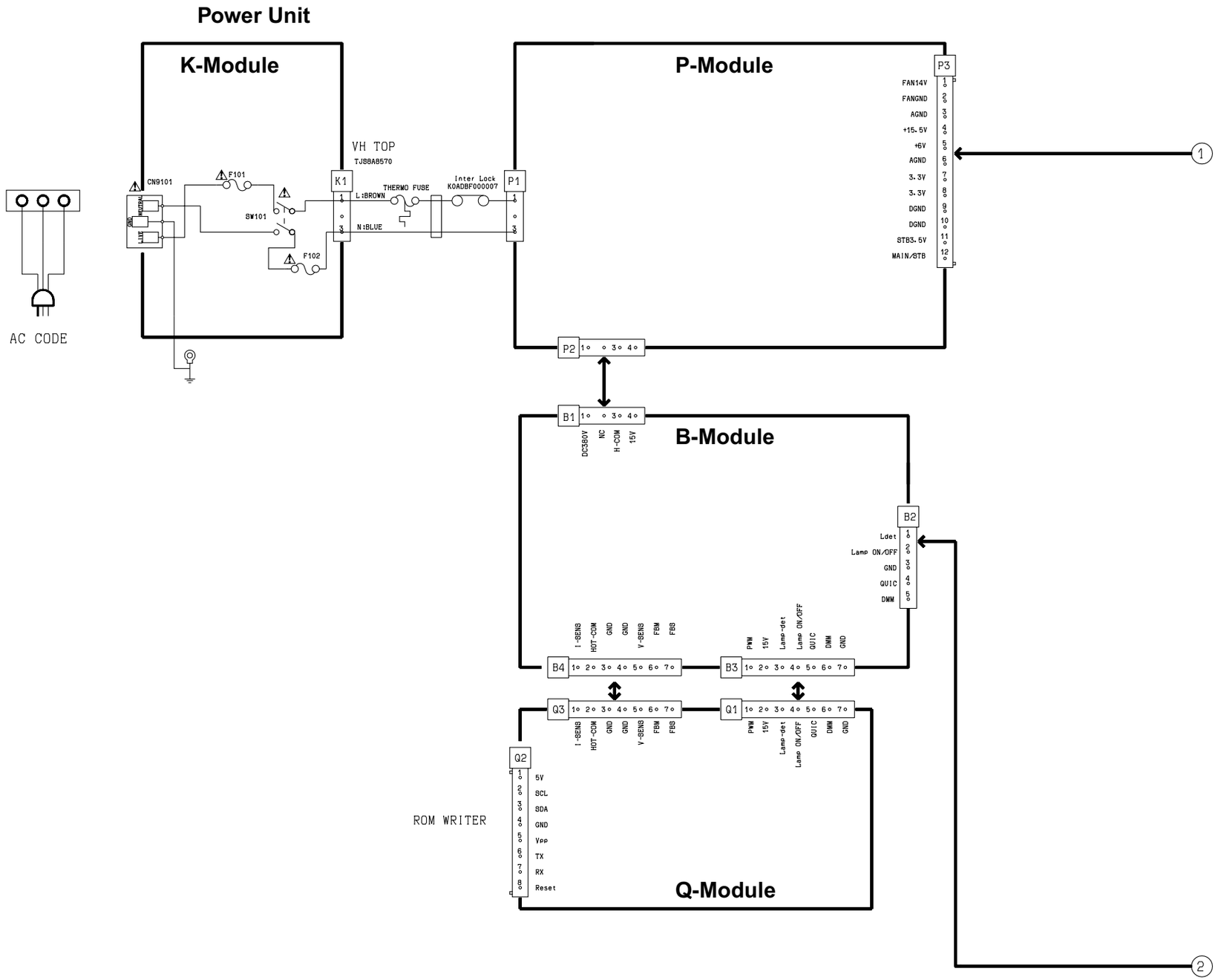


5 6 7 8 9

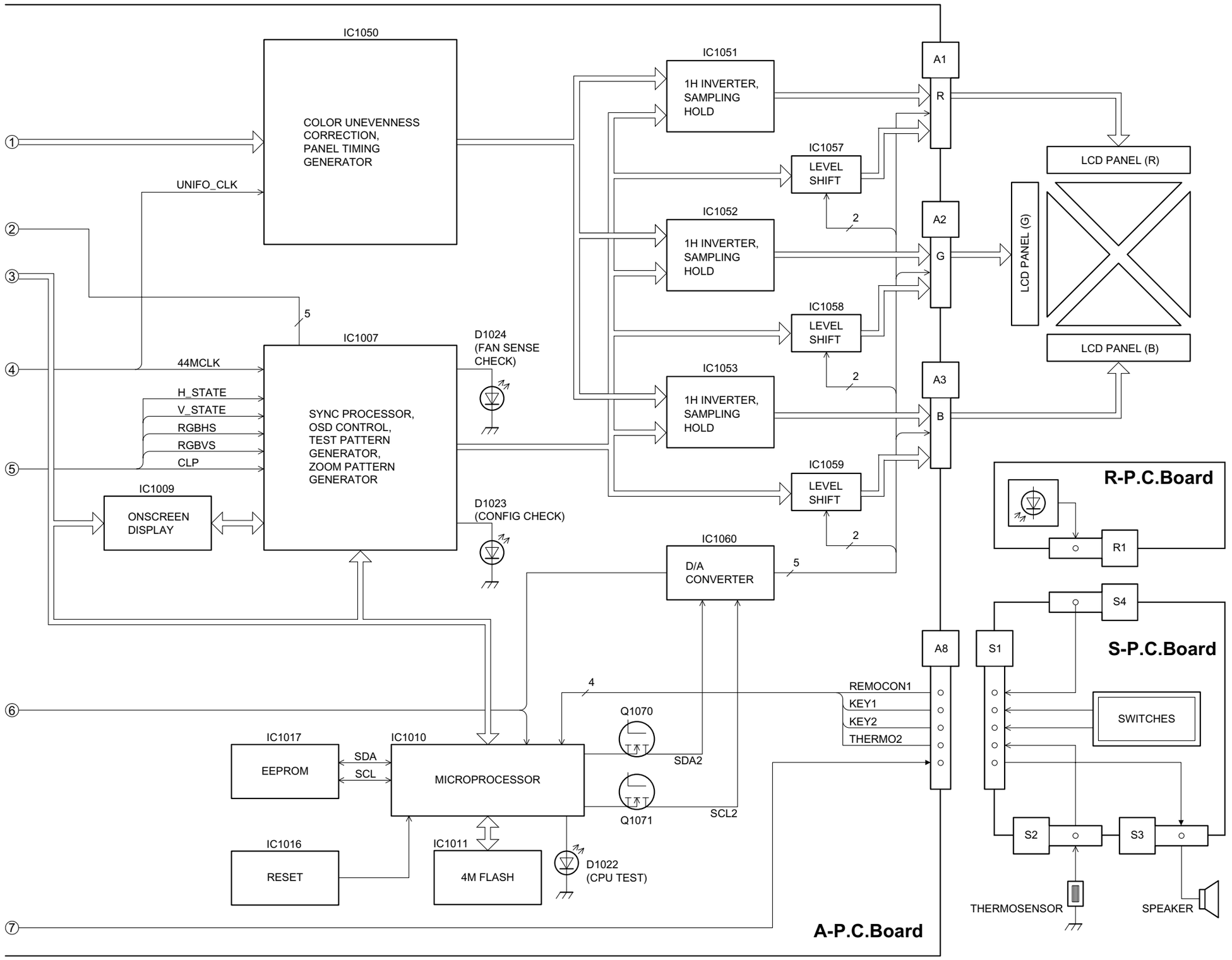
Interconnection Block Diagram (2/2)



Interconnection Block Diagram (1/2)



Signal Processing (2/2)



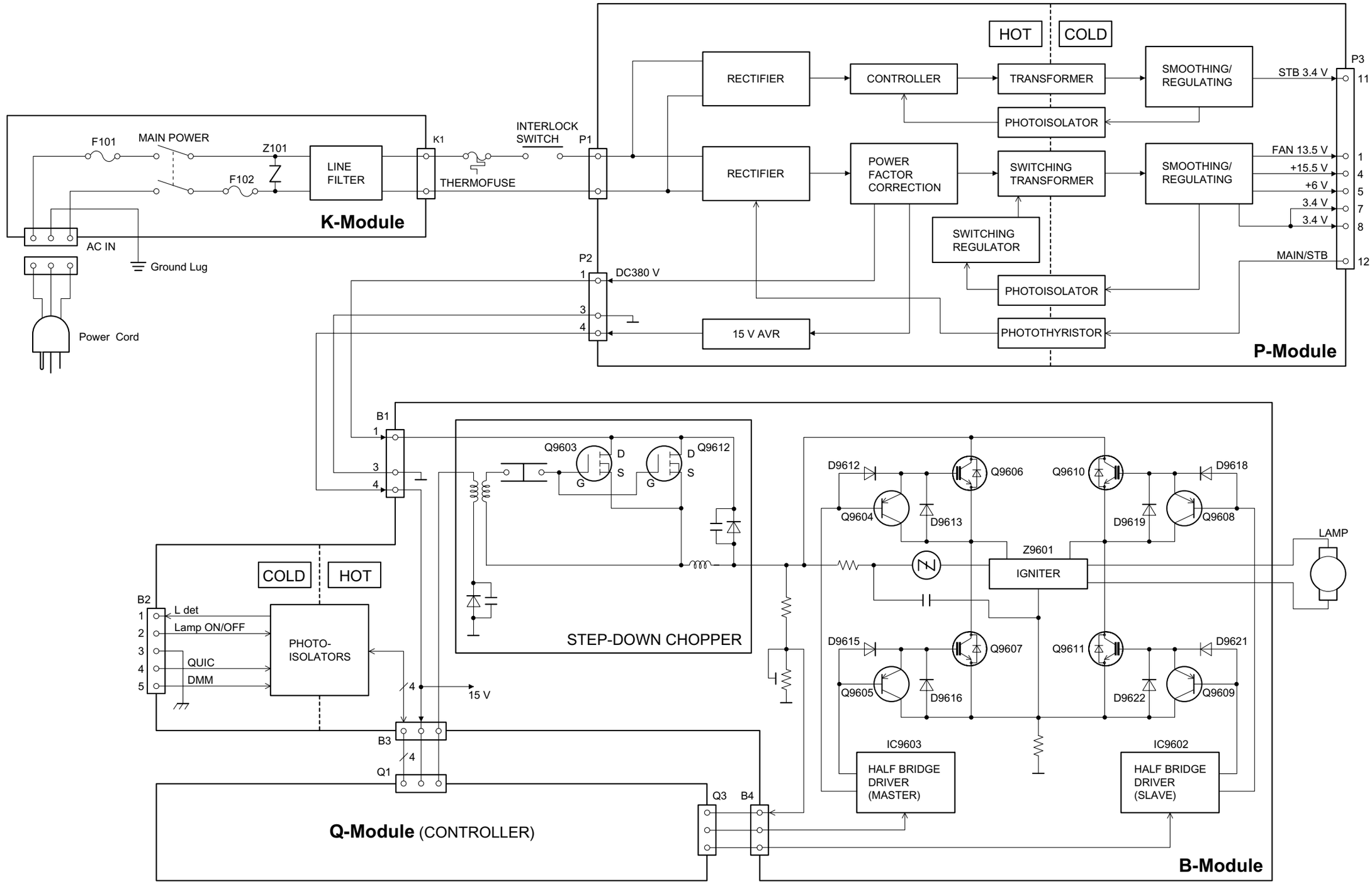
Signal Processing (1/2)

RGB IN
VIDEO IN
S2-VIDEO IN
Y · PB/CB · PR/CR IN
VIDEO AUDIO IN
YPBPR AUDIO IN
RGB AUDIO IN
PnP ADAPTER
IC1024
IC1001
SWITCHING, VIDEO AMP, 3ch A/D, PLL
IC1005
UP & DOWN SCALING, FRAME RATE CONVERSION, KEYSTONE CORRECTION, GAMMA CORRECTION
IC1006
16M SGRAM
OSDI
OSDG
OSDR
OSDB
OSDACT
IC1100
CLOCK DIVIDER D FLIP-FLOP
X1001 (68 MHz)
POCLK
IC1023
IC1021
VIDEO DECODER
IC1022
2D COM FILTER
IC1003
SYNC SEPARATOR
SYNC SWITCH
Q1023-Q1026, Q1028
Q1010
SW
SQUEEZE
Q1018
SW
YUV-VIDEO
VIDEO-RGB
Q1029
SW
BLST
Q1030
SW
QUICK
Q1031
SW
DIMMR
GSYNC1
GSYNC2
GSYNC
MUTE
VOL
Q1008
MUTE SWITCH
AUDIO AMP
IC1026
IC1004
PFAN1
LFAN1
LFAN2
PFAN2
Q1037
SW
MAIN/STB
LAMP_SENSE
THERMO1
D1065
A18
A17
A16
A15
A6
A4
P-Module P3
B-Module B2
PBS
EXHAUST
POWER
INTAKE
A-P.C.Board

1 2 3 4 5 6 7 8 9

A B C D E F

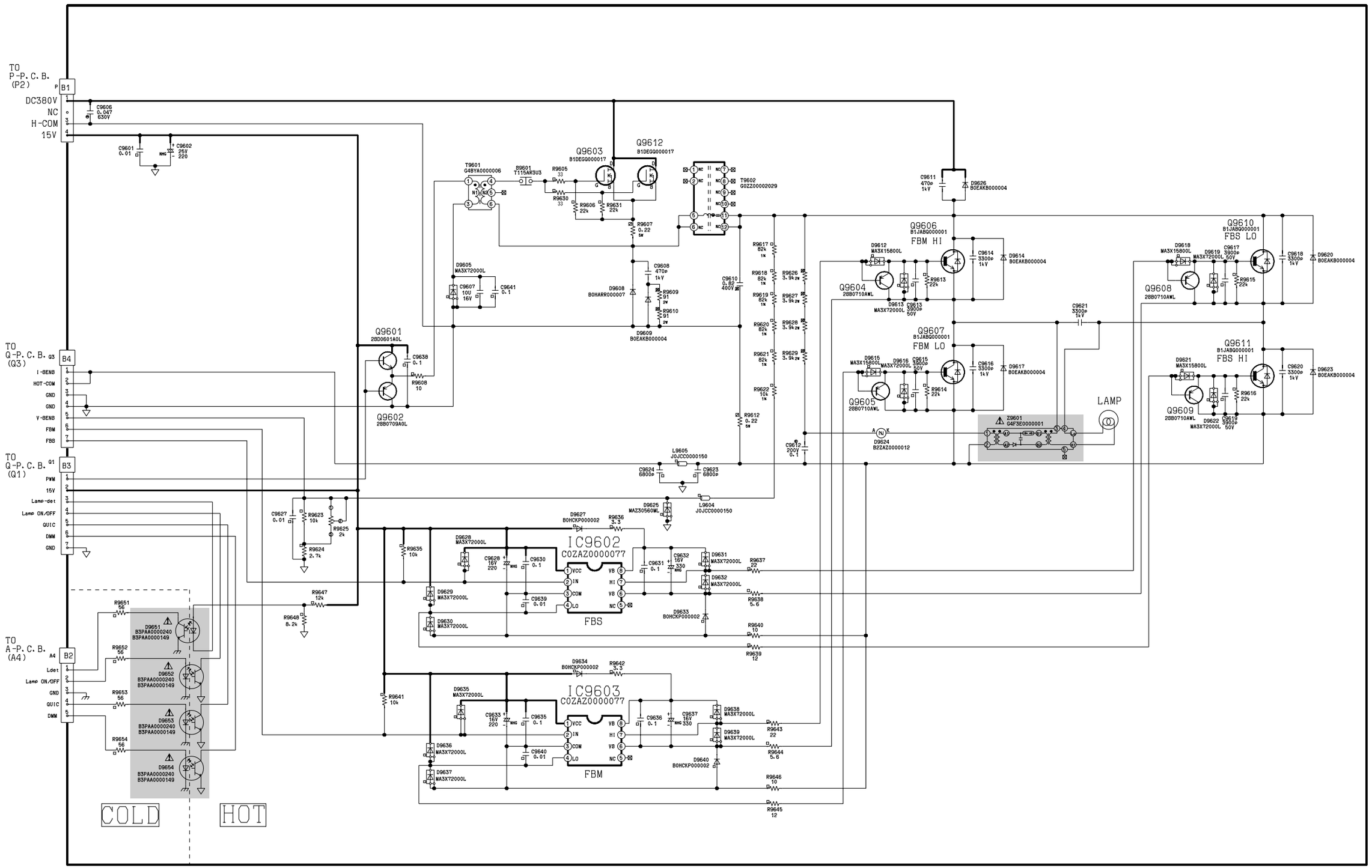
Power Supply



1 2 3 4 5 6 7 8 9

B-Module **TXANPBQVJJ3** **Module Replacement**

Only supplied components IC9602-3, Q9603-12, Z9601, D9612-13, D9615-16, D9618-19,D9621-22

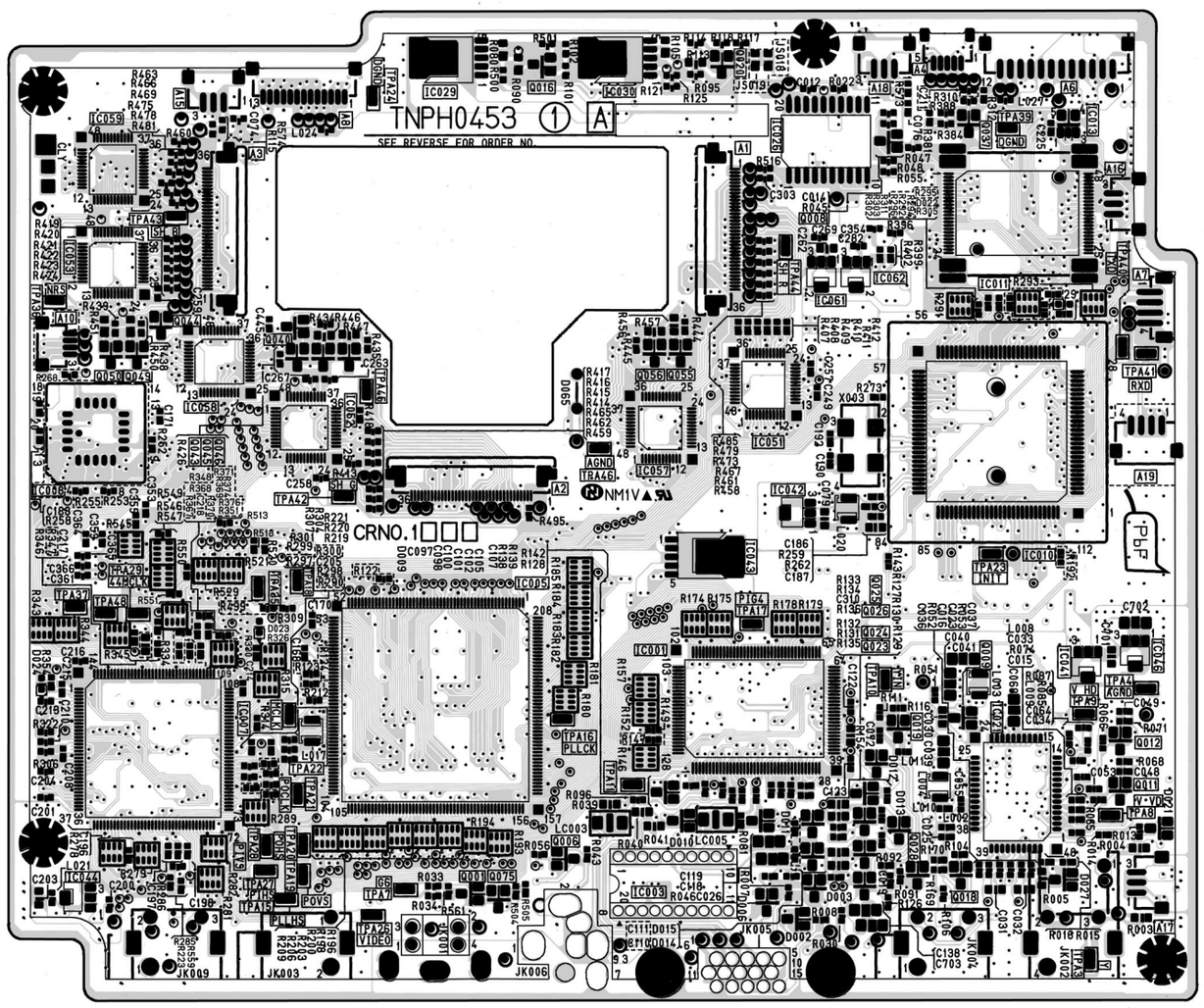


1 2 3 4 5 6 7 8 9

A-P.C.Board (Foil Side) TXANP01VJJ3

A-P.C.Board (Foil Side)											
IC				TRANSISTOR				TP			
IC1001	B-3	IC1052	C-2	Q1001	A-2	Q1043	C-1	TPA3	A-5	TPA26	A-2
IC1003	A-3	IC1053	C-1	Q1006	A-3	Q1044	C-1	TPA4	B-5	TPA27	A-2
IC1005	B-2	IC1057	C-3	Q1008	C-4	Q1045	C-1	TPA7	A-2	TPA28	A-2
IC1007	B-1	IC1058	C-1	Q1009	B-4	Q1046	C-1	TPA8	A-5	TPA29	B-1
IC1010	B-4	IC1059	D-1	Q1011	A-5	Q1049	C-1	TPA9	B-5	TPA35	B-2
IC1011	C-4	IC1061	C-4	Q1012	A-5	Q1050	C-1	TPA10	B-4	TPA36	C-1
IC1013	D-5	IC1062	C-4	Q1016	D-3	Q1055	C-3	TPA11	A-3	TPA37	B-1
IC1021	A-4			Q1018	A-4	Q1056	C-3	TPA15	A-2	TPA39	D-4
IC1026	D-4			Q1019	B-4	Q1075	A-2	TPA16	B-3	TPA40	C-5
IC1029	D-2			Q1020	D-3			TPA17	B-3	TPA41	C-5
IC1030	D-3			Q1023	B-4			TPA18	B-2	TPA42	B-2
IC1041	B-5			Q1024	B-4			TPA19	A-2	TPA43	C-1
IC1042	B-3			Q1025	B-4			TPA20	A-2	TPA44	C-3
IC1043	B-3			Q1026	B-4			TPA21	A-2	TPA45	C-2
IC1044	A-1			Q1028	A-4			TPA22	A-2	TPA46	C-3
IC1046	B-5			Q1037	D-4			TPA23	B-4	TPA48	B-1
IC1051	C-3			Q1040	C-2			TPA24	D-2		

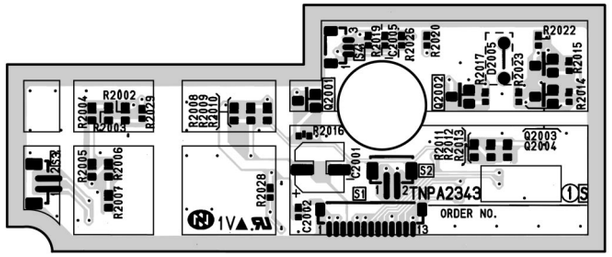
ADDRESS INFORMATION



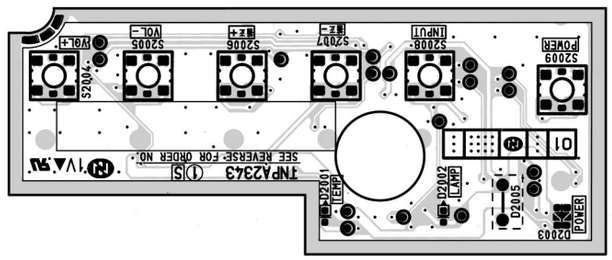
S-P.C.Board (Foil Side) TNPA2343

S-P.C.Board (Foil Side)	
TRANSISTOR	
Q2001	D-8
Q2002	D-8
Q2003	D-8
Q2004	D-8

ADDRESS INFORMATION



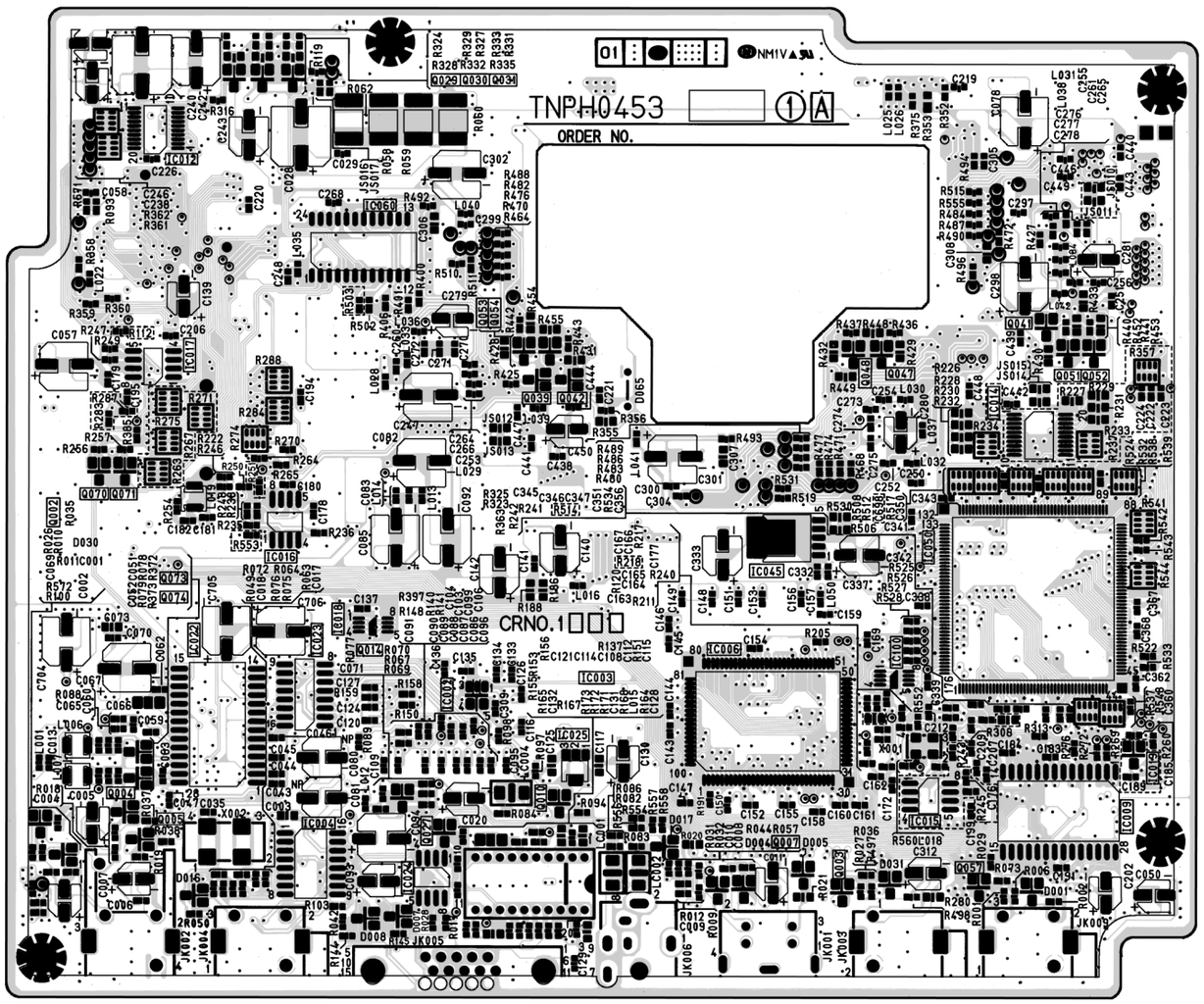
S-P.C.Board (Component Side) TNPA2343



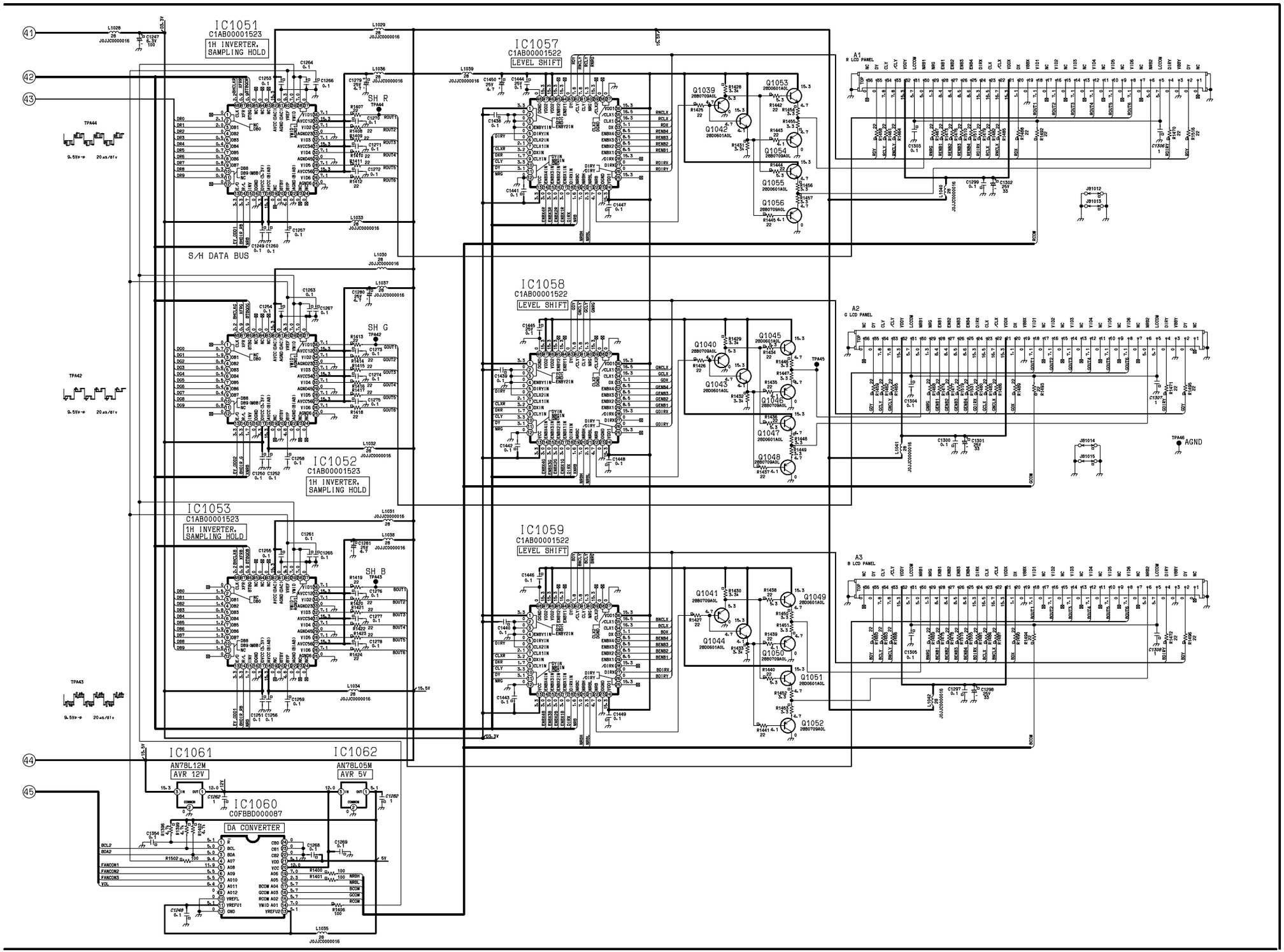
A-P.C.Board TXANP01VJJ3
(Component Side)

A-P.C.Board (Component Side)									
IC				TRANSISTOR					
IC1002	B-2	IC1022	B-1	Q1002	B-1	Q1030	D-2	Q1053	C-2
IC1003	A-3	IC1023	B-2	Q1003	A-4	Q1031	D-2	Q1054	C-2
IC1004	A-2	IC1024	A-2	Q1004	A-1	Q1039	C-3	Q1057	A-4
IC1006	B-3	IC1025	B-3	Q1005	A-1	Q1041	C-4	Q1070	C-1
IC1009	A-5	IC1045	B-3	Q1007	A-4	Q1042	C-3	Q1071	C-1
IC1012	D-1	IC1050	B-4	Q1010	A-3	Q1047	C-4	Q1073	B-1
IC1016	B-2	IC1060	C-2	Q1014	B-2	Q1048	C-4	Q1074	B-1
IC1017	C-1	IC1100	B-4	Q1027	A-2	Q1051	C-5		
IC1018	B-2			Q1029	D-2	Q1052	C-5		

ADDRESS INFORMATION



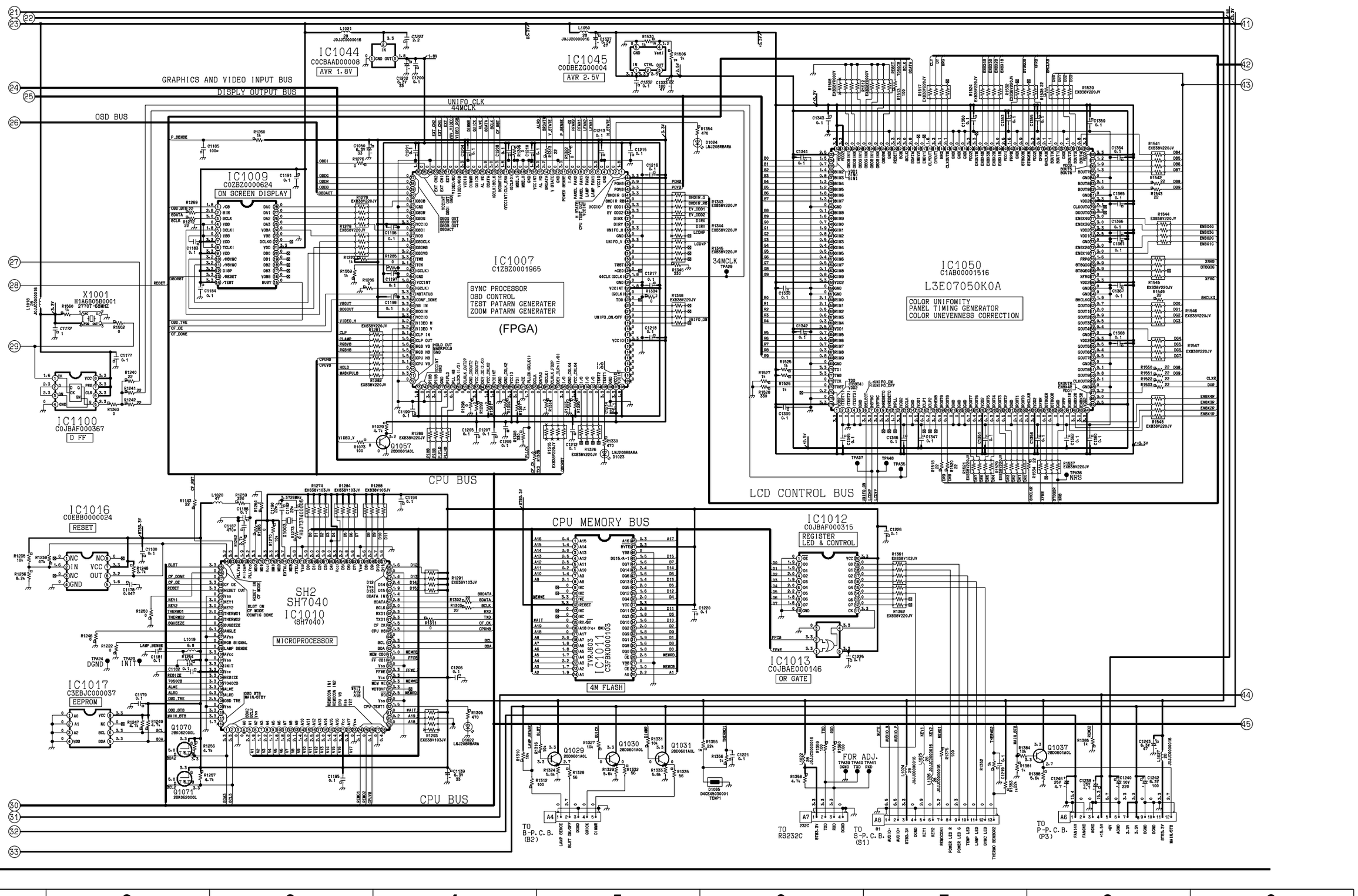
A-P.C.Board TXANP01VJJ3 (4/4)



F E D C B A

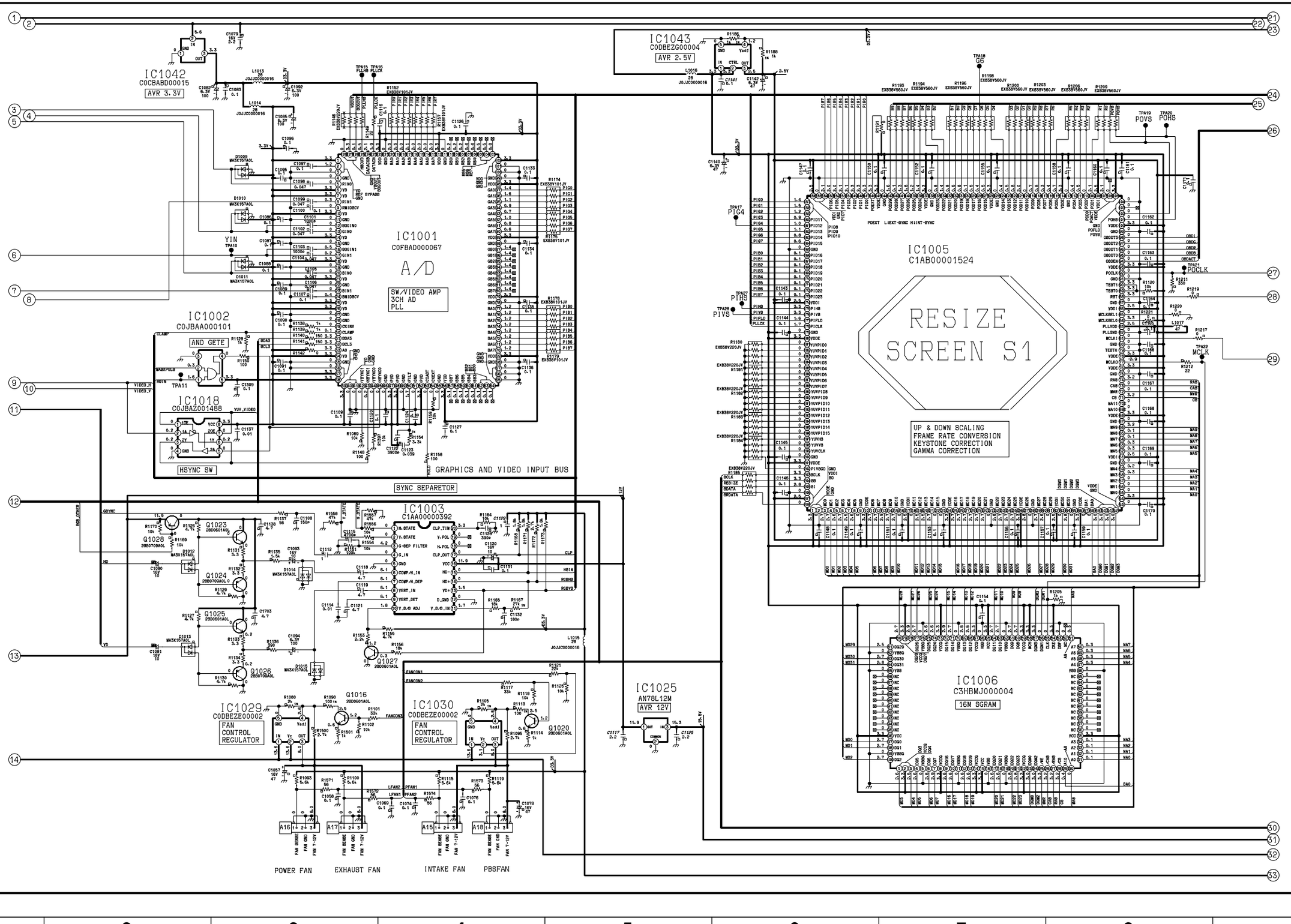
1 2 3 4 5 6 7 8 9

A-P.C.Board TXANP01VJJ3 (3/4)



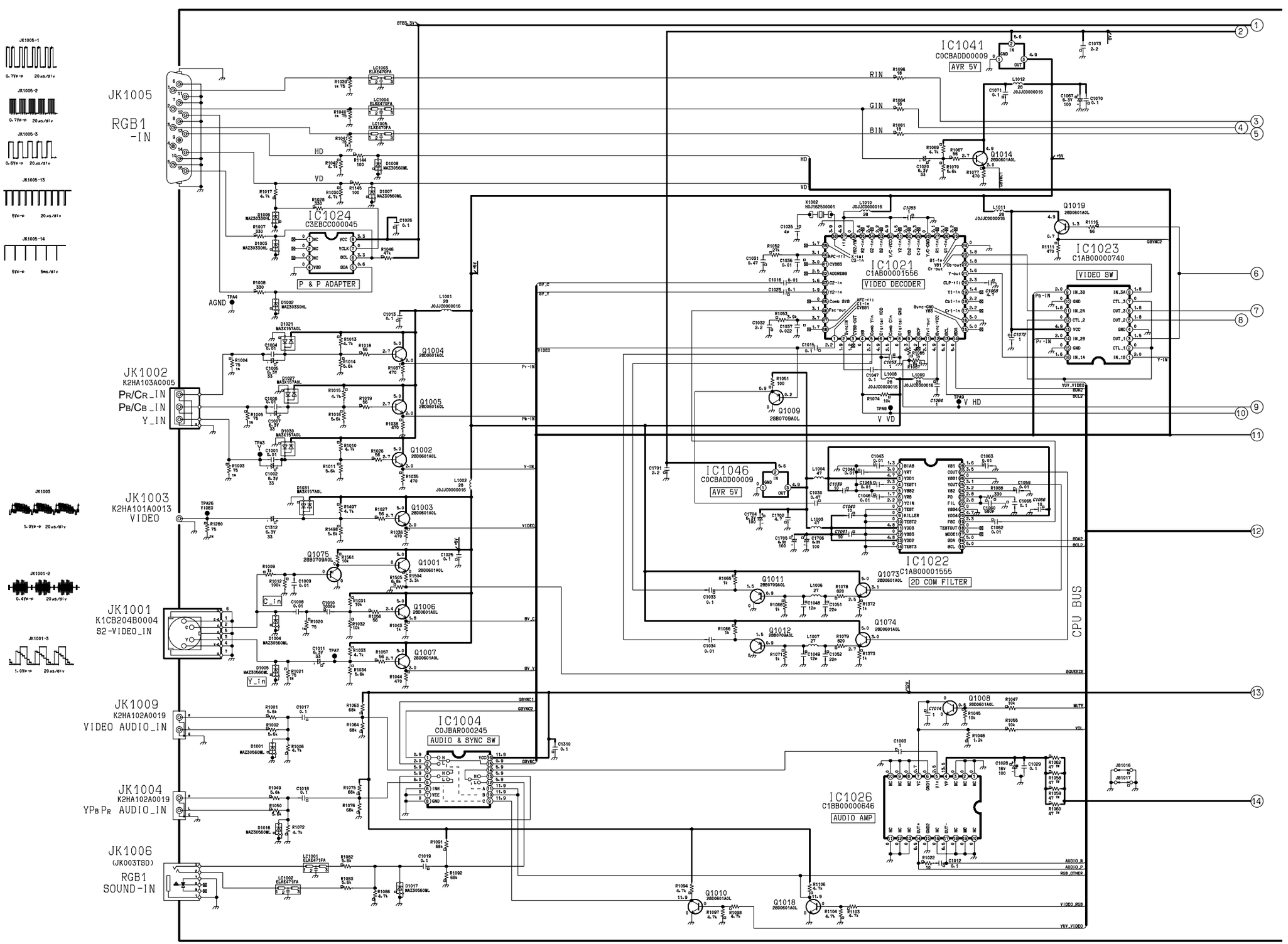
1 2 3 4 5 6 7 8 9

A-P.C.Board TXANP01VJJ3 (2/4)



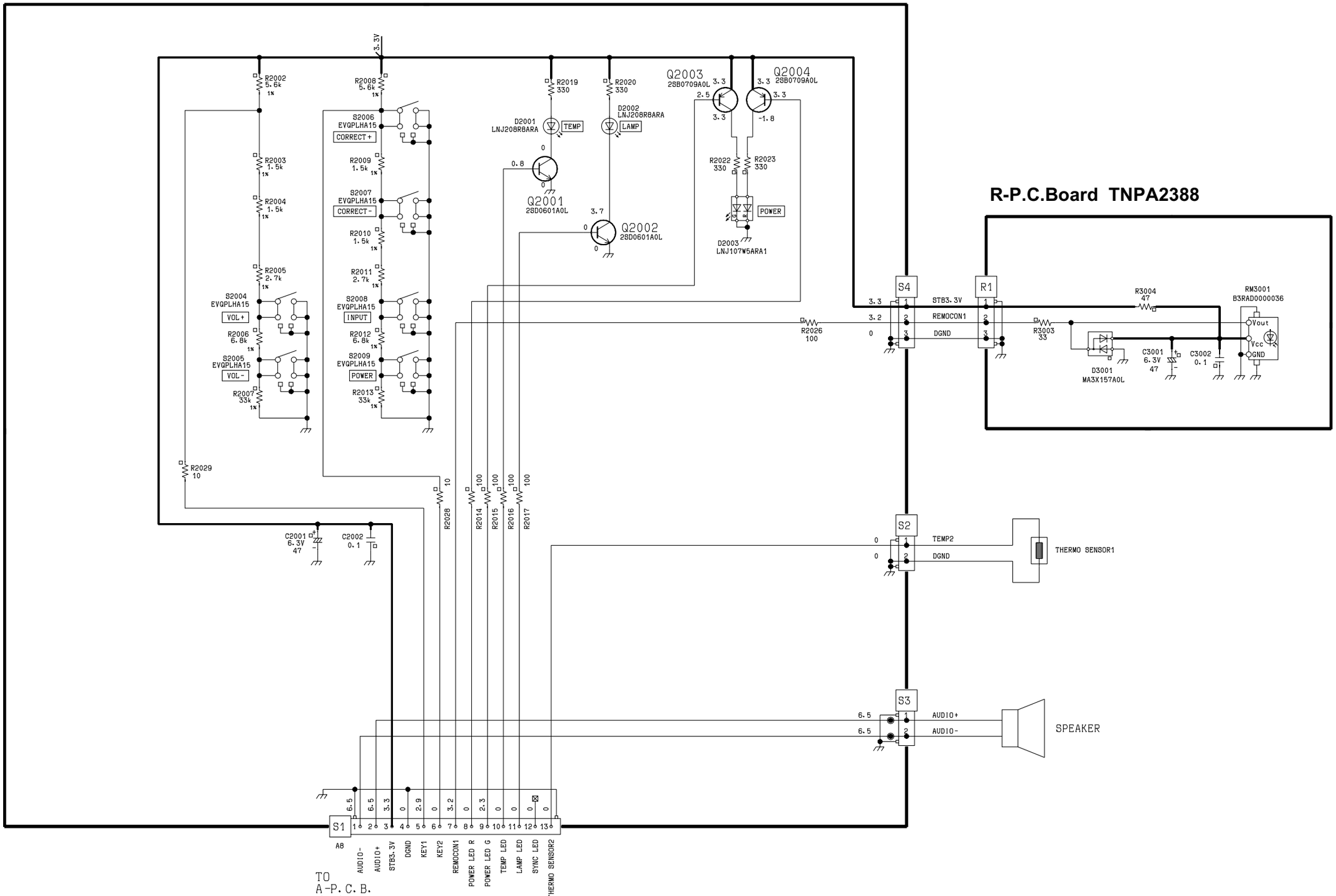
1 2 3 4 5 6 7 8 9

A-P.C.Board TXANP01VJJ3 (1/4)



1 2 3 4 5 6 7 8 9

S-P.C.Board TNPA2343



R-P.C.Board TNPA2388